

SEARCH REQUEST FORM

 Requestor's
Name: _____

 Serial
Number: _____

Date: _____ Phone: _____ Art Unit: _____

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

STAFF USE ONLY

Date completed: 05-23-02
 Searcher: Beverly E. 4994
 Terminal time: 20
 Elapsed time: _____
 CPU time: _____
 Total time: 25
 Number of Searches: _____
 Number of Databases: 1

Search Site

_____ STIC
 _____ CM-1
 _____ Pre-S

Type of Search

_____ N.A. Sequence
 _____ A.A. Sequence
 _____ Structure
 _____ Bibliographic

Vendors

_____ IG
 _____ STN
 _____ Dialog
 _____ APS
 _____ Geninfo
 _____ SDC
 _____ DARC/Questel
 _____ Other CGN

GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: May 22, 2002, 16:16:24 ; Search time 29.93 Seconds
(without alignments)
578.935 Million cell updates/sec

Title: US-09-770-528-2
Perfect score: 156
Sequence: 1 MVLVSGALCFMRKDSALKVL.....IPEDPAWDAPITDFYFQCD 156

Scoring table: OLIGO
Gapex 60.0, Gapex 60.0

Searched: 747574 seqs, 111073796 residues

Word size: 12

Total number of hits satisfying chosen parameters: 39

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 1000 summaries

Database: A_Geneseq_032802.*
1: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1980.DAT.*
2: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1981.DAT.*
3: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1982.DAT.*
4: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1983.DAT.*
5: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1984.DAT.*
6: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1985.DAT.*
7: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1986.DAT.*
8: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1987.DAT.*
9: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1988.DAT.*
10: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1989.DAT.*
11: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1990.DAT.*
12: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1991.DAT.*
13: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1992.DAT.*
14: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1993.DAT.*
15: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1994.DAT.*
16: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1995.DAT.*
17: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1996.DAT.*
18: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1997.DAT.*
19: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1998.DAT.*
20: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA1999.DAT.*
21: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA2000.DAT.*
22: /SIDSI/gcgdata/hold-geneseq/geneseq-emb1/AA2001.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	156	100.0	156	19	AAW86284
2	156	100.0	156	20	AAW28407
3	156	100.0	156	21	AAV2260
4	156	100.0	156	21	AAV45061
5	155	99.4	155	21	AAV96937
6	155	99.4	155	22	AAV35261
7	155	99.4	155	22	AAV66672
8	155	99.4	155	22	AAV48828
9	154	98.7	154	22	AAV66663
10	94	60.3	94	21	AAV97068
11	44	28.2	80	20	AAV43525

12	44	28.2	80	22	AAV66663	Protein encoded by Interleukin-IL1 re
13	44	28.2	154	22	AAV35263	Human Interleukin
14	44	28.2	155	20	AAV28408	Human IL-1 recepto
15	44	28.2	155	21	AAV96936	Human IL-1 homolog
16	44	28.2	155	21	AAV92256	Human IL-1 homolog
17	44	28.2	155	21	AAV92257	Human TANGO-93 pro
18	44	28.2	155	21	AAV45062	Human Interleukin-
19	44	28.2	155	22	AAV60655	Human PRO342. Ho
20	44	28.2	155	22	AAV87601	Human IL-IL1. Hom
21	44	28.2	155	22	AAV35260	Protein encoded by
22	44	28.2	155	22	AAV35262	Interleukin-IL1 re
23	44	28.2	155	22	AAV66664	Interleukin-IL1 re
24	44	28.2	157	22	AAV35364	Novel human diago
25	39	25.0	258	22	ABG22711	A human IL-1 recepto
26	34	21.8	155	20	AAV43526	Human IL-1 recepto
27	33	21.2	98	21	AAV97067	Generic human IL-1
28	33	21.2	104	22	AAV35266	Generic human IL-1
29	33	21.2	155	21	AAV92253	Epitope fragment o
30	33	21.2	155	21	AAV92254	Epitope fragment o
31	33	21.2	155	21	AAV92255	Epitope fragment o
32	21	13.5	21	19	AAV85942	Epitope fragment o
33	18	11.5	18	19	AAV85941	Epitope fragment o
34	13	8.3	13	19	AAV85947	Epitope fragment o
35	13	8.3	13	19	AAV85948	Epitope fragment o
36	13	8.3	13	19	AAV85943	Epitope fragment o
37	13	8.3	13	19	AAV85944	Epitope fragment o
38	13	8.3	13	19	AAV85945	Epitope fragment o
39	12	7.7	12	19	AAV85946	Epitope fragment o

ALIGNMENTS

RESULT 1
AAW86284
ID AAW86284 standard; Protein; 156 AA.

AC AAW86284;
XX 19-FEB-1999 (first entry)
DT Rodent interleukin (IL)-1 delta polypeptide.
DE Interleukin; IL-1 delta; polyclonal antibody; IL-1 epsilon; cytokine;
KW inflammatory response; Immune system; diagnosis; agonist; antagonist;
KW chemokine.

XX Mus sp.
XX WO9847921-A1.
PD 29-OCT-1998.
XX 17-APR-1998; 98WO-US06879.
XX 06-AUG-1997; 97US-0055111.
PR 21-APR-1997; 97US-0837627.

XX (SCHE) SCHERING CORP.
XX Bazan JF, Hedrick JA, Kastelein RA, Sana TR;
PI WPI; 1998-609976/51.
DR N-PSDB; AAV71958.
XX Mammalian interleukin 1-delta and 1-epsilon - useful for, e.g.
PT regulating the immune system and inflammatory responses
XX Claim 1; Pages 89-90; 113pp; English.

XX This represents a rodent interleukin (IL)-1 delta polypeptide. The
CC invention relates to a recombinant polypeptide that specifically binds
CC polyclonal antibodies (Abs) generated against a 12 consecutive amino acid

CC segment of IL-1 delta or IL-1 epsilon. Agonists or antagonists of these
CC IL polypeptides are used to regulate a cell involved in an inflammatory
CC response. The IL-1 delta or IL-1 epsilon polypeptides and peptides are
CC used to produce Abs and antigen-Ab complexes. The polypeptides, Abs and
CC the corresponding nucleic acids regulate development and/or the immune
CC system, and can be used to diagnose and treat conditions associated with
CC abnormal expression of IL. Agonists or antagonists of IL-1 delta or IL-1
CC epsilon polypeptides are used with agonists or antagonists of IL-1 alpha,
CC IL-1RA, IL-1 beta, IL-1 gamma, IL-2 and/or IL-12. The IL-1 delta or IL-1
CC epsilon polypeptides may be used as a soluble polypeptide or as a fusion
CC protein with another cytokine or chemokine.
XX Sequence 156 AA;
SQ

Query Match 100.0%; Score 156; DB 19; Length 156;
Best Local Similarity 100.0%; Pred. No. 5.6e-160;
Matches 156; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MMVLSGALCFRMKDSALKVLYLHNNQLLAGGLHAQKVIKGEISVVPNRALDASISPVIL 60
DB 1 MMVLSGALCFRMKDSALKVLYLHNNQLLAGGLHAQKVIKGEISVVPNRALDASISPVIL 60
QY 61 GVQGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKFTFYRRDMGLTSSFSFESAAYPGW 120
DB 61 GVQGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKFTFYRRDMGLTSSFSFESAAYPGW 120
QY 121 FLCTSPADQPVRLTQIPEDPAWDAPITDFYFQOCD 156
DB 121 FLCTSPADQPVRLTQIPEDPAWDAPITDFYFQOCD 156

RESULT 2
AAY28407
ID AAY28407 standard; Protein; 156 AA.
XX AAY28407;
AC
XX
XX
DT 28-SEP-1999 (first entry)
XX
XX Mouse Interleukin 1 delta.
XX
XX Interleukin 1 delta; IL-1 delta; glaucoma; ectodermal dysplasia;
KW insulin-dependent diabetes mellitus; wrinkly skin syndrome;
KW T-cell leukemia; lymphoma; tibial muscular dystrophy.
XX
XX Mus musculus.
OS
XX WO9935268-A1.
XX
XX 15-JUL-1999.
XX
XX 08-JAN-1999; 99WO-US00514.
XX
XX 01-JUN-1998; 98US-0087393.
PR 09-JAN-1998; 98US-0071074.
XX
XX (IMMUNEX) IMMUNEX CORP.
XX
XX
XX Sims JE;
PI
XX WPI; 1999-458310/38.
DR N-PSDB; AAX89431.
DR

XX Murine and Human Interleukin 1 delta DNA, polypeptides and its
XX fragments, useful as molecular weight markers
XX
XX Claim 1; Page 67; 72pp; English.
XX
XX The present sequence represents mouse interleukin 1 delta (IL-1 delta).
XX IL-1 delta proteins are useful for the determination of the molecular
CC weight of a sample protein. The protein and its fragments are useful as
CC controls for peptide fragmentation. This is useful for determining the
CC

CC isoelectric point of a sample protein. Antibodies generated against
CC IL-1 delta and its fragmented peptides can be used to enhance the
CC accuracy of these molecular weight markers to determine the apparent
CC molecular eight and isoelectric point of a sample protein. IL-1 delta
CC can be used to screen for potential inhibitors of activity associated
CC with IL-1 delta counter-structure molecules. IL-1 delta can also be used
CC as therapeutic agents for the treatment of diseases mediated by IL-1
CC delta. IL-1 delta may be used as a reagent in studying the interleukin 1
CC (IL-1) signalling pathway, or as a reagent to block IL-1 signalling. The
CC IL-1 delta coding sequences can be used to identify human chromosome 2,
CC and to identify genes associated with certain diseases, especially with
CC region 2q11-12, including glaucoma, ectodermal dysplasia, insulin-
CC dependent diabetes mellitus, wrinkly skin syndrome, T-cell leukemia/
CC lymphoma and tibial muscular dystrophy.
XX
SQ Sequence 156 AA;

Query Match 100.0%; Score 156; DB 20; Length 156;
Best Local Similarity 100.0%; Pred. No. 5.6e-160;
Matches 156; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MMVLSGALCFRMKDSALKVLYLHNNQLLAGGLHAQKVIKGEISVVPNRALDASISPVIL 60
DB 1 MMVLSGALCFRMKDSALKVLYLHNNQLLAGGLHAQKVIKGEISVVPNRALDASISPVIL 60
QY 61 GVQGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKFTFYRRDMGLTSSFSFESAAYPGW 120
DB 61 GVQGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKFTFYRRDMGLTSSFSFESAAYPGW 120
QY 121 FLCTSPADQPVRLTQIPEDPAWDAPITDFYFQOCD 156
DB 121 FLCTSPADQPVRLTQIPEDPAWDAPITDFYFQOCD 156

RESULT 3
AAY92260
ID AAY92260 standard; Protein; 156 AA.
XX
XX AAY92260;
AC
XX
XX 10-AUG-2000 (first entry)
XX
XX Murine IL-1 homologue, zilla3.
DE
XX
XX Generic; interleukin-1; IL-1; homologue; zilla3; anti-inflammatory;
KW antagonist; pro-inflammatory; agonist; immunomodulator; antiarthritic;
KW antirheumatic; osteopathic; antipsoriatic; antibacterial; cytostatic;
KW immunosuppressive; antiulcer; antidiabetic; nephrotropic; vasotropic;
KW vulnerary; zql4.
XX
XX Mus musculus.
OS
XX WO200020595-A1.
XX
XX 13-APR-2000.
PD
XX
XX 08-OCT-1999; 99WO-US23533.
PF
XX
XX 08-OCT-1998; 98US-0169745.
PR
XX
XX (ZYMO) ZYMOGENETICS INC.
XX
XX Sheppard PO, West RR, Clegg CH;
PI
XX WPI; 2000-303780/26.
DR N-PSDB; AAA09198.
DR

XX Proteins useful for treatment of inflammatory conditions such as
XX rheumatoid arthritis and psoriasis are agonists or antagonists forms of
XX new interleukin-1 homologue
XX
XX Example 7; Page, 59-60; 64pp; English.
PS

XX This shows an interleukin-1 (IL-1) homologue, designated zilla3. A 350
 CC bp probe generated from the DNA sequence by PCR using AAA09199-200 was
 CC used to analyze human northern blots.
 CC It is believed that zilla3 acts through IL-1 receptors. In general,
 CC zilla3 proteins having a Lys residue at position 148 will have
 CC anti-inflammatory activity (e.g. AA92256), whilst those having Asp
 CC (see AA92254) or Glu at this position will have pro-inflammatory
 CC action. Zilla3 is used to modulate an immune response in an animal
 CC (claimed). Antagonists zilla3 forms may be used to treat or prevent
 CC chronic inflammatory diseases such as rheumatoid arthritis,
 CC osteoarthritis and Lyme arthritis, psoriasis, to reduce tissue damage
 CC after ischemia, to treat septic shock, graft-versus-host disease and
 CC leukemia. The antagonists may also alleviate inflammatory bowel disease
 CC including Crohn's disease and ulcerative colitis, insulin-dependent
 CC diabetes mellitus, acute pancreatitis, glomerulonephritis and cerebral
 CC ischemia. Agonist forms of zilla3 may promote wound healing by IL-1
 CC effects on growth factor secretion and cell proliferation. They may also
 CC treat infections, especially gastrointestinal infections.

Sequence 156 AA;

Query Match 100.0%; Score 156; DB 21; Length 156;
 Best Local Similarity 100.0%; Pred. No. 5.6e-160;
 Matches 156; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MMVLSGALCFRKMDSALKVLYLHNNQLLAGLHAEKVIGKEISVVPNRLDASLSPVIL 60
 DB 1 MMVLSGALCFRKMDSALKVLYLHNNQLLAGLHAEKVIGKEISVVPNRLDASLSPVIL 60
 QY 61 GVQGSQCLSCGTEKGPILKLEPNIMELYLGAKESKFTFYRRDMLTSSFESAAYPGW 120
 DB 61 GVQGSQCLSCGTEKGPILKLEPNIMELYLGAKESKFTFYRRDMLTSSFESAAYPGW 120
 QY 121 FLCTSPDADQPVRLTQIPEDPAWDAPITDFYFQQCD 156
 DB 121 FLCTSPDADQPVRLTQIPEDPAWDAPITDFYFQQCD 156

RESULT 4

AA45061
 ID AA45061 standard; Protein; 156 AA.

AC AA45061;

DT 31-MAY-2000 (first entry)

Murine TANGO-93 protein.

TANGO-93; cytokine; mouse; secreted protein; IL-1 expression; cancer;
 KW Interleukin-1 receptor antagonist; IL-1ra; inflammation; antiasthmatic;
 KW immunosuppressive; antirheumatic; antiarthritic; antipsoriatic; asthma;
 KW anti-inflammatory; antibacterial; antiulcer; cytostatic; immunomodulator;
 KW osteopathic; dermatological; antidiabetic; psoriasis; ulcerative colitis;
 KW graft vs-host disease; rheumatoid arthritis; inflammatory bowel disease;
 KW septic shock; cachexia; Crohn's disease; chronic myelogenous leukemia;
 KW liver disease; diabetes; osteoarthritis; Hodgkin's disease; Lyme disease;
 KW autoimmune disease; myasthenia gravis; pharmacogenomic; diagnosis;
 KW systemic lupus erythematosus; forensic; transgenic animal.

OS Mus sp.

XX WO200008045-A2.

XX 17-FEB-2000.

XX 06-AUG-1999; 99WO-US17886.

XX 07-AUG-1998; 98US-0131263.

XX (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.

PI Pan Y;

XX WPI: 2000-205669/18.
 DR N-PSDB; AA250811.

XX Isolated nucleic acid sequences encoding TANGO-93 polypeptide useful
 PT for treating a variety of cellular processes e.g. asthma, rheumatoid
 PT arthritis, psoriasis and autoimmune diseases

XX Claim 9; Fig 1; 113pp; English.

XX The present sequence is the murine TANGO-93, a secreted protein, that
 CC belongs to the cytokine superfamily. It plays a role similar to secreted
 CC Interleukin-1 receptor antagonist (IL-1ra) and its expression is
 CC developmentally regulated in liver, heart and bone marrow. TANGO-93
 CC modulates immune mediated inflammation and IL-1 gene or protein
 CC expression. TANGO-93 is useful as a modulating agent for regulating
 CC cellular processes like asthma, graft vs-host disease, rheumatoid
 CC arthritis, psoriasis, inflammatory bowel disease, septic shock,
 CC cancer, liver disease, Hodgkin's disease, chronic myelogenous leukemia,
 CC cachexia, and autoimmune diseases e.g. myasthenia gravis, Lyme disease,
 CC diabetes and systemic lupus erythematosus. Partial TANGO-93 sequences
 CC are useful in forensic biology, for diagnostic and prognostic assays,
 CC prophylactic and therapeutic treatment and pharmacogenomics. The DNA
 CC sequences are useful as hybridisation probes and primers, for isolation
 CC of TANGO-93 sequence and for the creation of transgenic animals.

XX Sequence 156 AA;

Query Match 100.0%; Score 156; DB 21; Length 156;
 Best Local Similarity 100.0%; Pred. No. 5.6e-160;
 Matches 156; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MMVLSGALCFRKMDSALKVLYLHNNQLLAGLHAEKVIGKEISVVPNRLDASLSPVIL 60
 DB 1 MMVLSGALCFRKMDSALKVLYLHNNQLLAGLHAEKVIGKEISVVPNRLDASLSPVIL 60

QY 61 GVQGSQCLSCGTEKGPILKLEPNIMELYLGAKESKFTFYRRDMLTSSFESAAYPGW 120

DB 61 GVQGSQCLSCGTEKGPILKLEPNIMELYLGAKESKFTFYRRDMLTSSFESAAYPGW 120

QY 121 FLCTSPDADQPVRLTQIPEDPAWDAPITDFYFQQCD 156

DB 121 FLCTSPDADQPVRLTQIPEDPAWDAPITDFYFQQCD 156

RESULT 5

AA45061
 ID AA45061 standard; Protein; 155 AA.

AC AA45061;

DT 31-OCT-2000 (first entry)

DE Murine IL-1 receptor antagonist 3.

XX mIL-1ra3; interleukin-1 receptor antagonist-3; IL-1lp; osteopathic;
 KW interleukin-1-like polypeptide; anti-inflammatory; anti-asthmatic;
 KW anti-arthritic; antimicrobial; respiratory; anti-ischemic; vaccine;
 KW dermatological; immunomodulatory; gastrointestinal; gene therapy.

OS Mus sp.

XX WO200039297-A2.

XX 06-JUL-2000.

XX 22-DEC-1999; 99WO-US30720.

XX 23-DEC-1998; 98US-0113430.

PR 22-JAN-1999; 99US-0116843.

PR 13-APR-1999; 99US-0129122.
XX (GETH) GENENTECH INC.
XX
XX
PI Goddard A, Pan J;
XX
XX WPI; 2000-452395/39.
DR N-PSDB; RAA51599.
XX
XX Nucleic acids encoding interleukin-1-like polypeptides, useful for
PT preventing and treating e.g. inflammation, asthma and psoriasis
PT
PS Claim 22; Fig 9A-B; 143pp; English.
XX
XX An isolated nucleic acid molecule encoding an interleukin-1-like
CC polypeptide (IL-1lp) that retains one or more activities of the peptide
CC from which it is derived, such as the IL-18R binding activity of a human
CC interleukin-1 receptor antagonist-1 (hIL-1ra1) polypeptide, is new. The
CC nucleic acids may be used in molecular engineering applications, e.g.
CC hybridization assays and chromosome and gene mapping studies, for
CC recombinantly producing the IL-1lp polypeptide or for producing gene
CC knock out animals to study the role of the protein in metabolism and
CC disease processes (conversely, gene therapy protocols may be used to
CC supplement a patient's production of the polypeptide or to rectify
CC mutations that lead to the production of in active peptides). The
CC peptides produced may be used to screen for and produce modulators (e.g.
CC antibodies) of IL-1lp protein expression and activity which may be use
CC to treat disorders associated with inappropriate IL-1lp expression and
CC activity, such as inflammatory disorders, asthma, arthritis,
CC osteoarthritis, sepsis, acute lung injury, adult respiratory distress
CC syndrome, idiopathic pulmonary fibrosis, ischemic reperfusion disease,
CC psoriasis, graft versus host disease and/or inflammatory bowel disease.
XX
SQ Sequence 155 AA;

Query Match 99.4%; Score 155; DB 21; Length 155;
Best Local Similarity 100.0%; Pred. No. 6.7e-159;
Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 MVLGALCFRMKDSALKVLYLHNNQLLAGLHAEKVIKGEISVVPNRLDASLSPVILG 61
Db 1 mvlsgalcfmkdsalkvlylhnnqllaggllhaekvikgeisvvpnralspsvllg 60

QY 62 VQGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMGLTSSFSAAYPGW 121
Db 61 vqgsqclscgtekgpilklepvnimelylgakeskstfyrddmgltsfsesaaypgw 120

QY 122 LCTSPADQPVRLTQIPEDPAWDAPITDFYFOQCD 156
Db 121 lctspadqpvrltqipedpawdapitdfyfqqcd 155

RESULT 6
AAB35261
ID AAB35261 standard; Protein; 155 AA.
XX
XX AAB35261;
XX
XX 08-MAY-2001 (first entry)
XX
XX Murine IL-1L1.
XX
XX Mouse; IL-1L1; Interleukin-1 locus; IL-1beta; IL-1receptor; psoriasis;
KW chromosome 2q13; inflammatory disease; heart disease; Graves' disease;
KW rheumatoid arthritis; inflammatory bowel disorder; diabetes; cancer;
KW osteoporosis; systemic lupus erythematosus.
XX
XX Mus sp.
XX
XX WO200105974-A2.
XX
XX 25-JAN-2001.

XX 17-JUL-2000; 2000WO-US19508.
XX
XX 16-JUL-1999; 99US-0144298.
XX
XX (INTE-) INTERLEUKIN GENETICS INC.
XX
XX Nicklin M, Barton J;
XX
XX WPI; 2001-091974/10.
XX
XX Nucleic acids encoding human and murine interleukin-1L1 polypeptides
PT useful for controlling inflammatory processes -
PT
XX Claim 11; Fig 3; 150pp; English.
XX
XX The present invention provides the protein and coding sequences of the
CC human and murine interleukin-1L1 (IL-1L1) proteins. The IL-1L1 gene is
CC located between the IL-beta and IL-1receptor genes at human chromosome
CC 2q13. The sequences are useful in the diagnosis, prevention and treatment
CC of heart disease, cancer and inflammatory diseases such as rheumatoid
CC arthritis, systemic lupus erythematosus, inflammatory bowel disorder,
CC diabetes, psoriasis, osteoporosis, lichen sclerosis, ulcerative colitis,
CC severe periodontal disease and pregnancy complications. The present
CC sequence is the murine IL-1L1 protein.
XX
SQ Sequence 155 AA;

Query Match 99.4%; Score 155; DB 22; Length 155;
Best Local Similarity 100.0%; Pred. No. 6.7e-159;
Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 MVLGALCFRMKDSALKVLYLHNNQLLAGLHAEKVIKGEISVVPNRLDASLSPVILG 61
Db 1 mvlsgalcfmkdsalkvlylhnnqllaggllhaekvikgeisvvpnralspsvllg 60

QY 62 VQGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMGLTSSFSAAYPGW 121
Db 61 vqgsqclscgtekgpilklepvnimelylgakeskstfyrddmgltsfsesaaypgw 120

QY 122 LCTSPADQPVRLTQIPEDPAWDAPITDFYFOQCD 156
Db 121 lctspadqpvrltqipedpawdapitdfyfqqcd 155

RESULT 7
AAB66672
ID AAB66672 standard; protein; 155 AA.
XX
XX AAB66672;
XX
XX 05-APR-2001 (first entry)
XX
XX Invention related sequence #4.
XX
XX Interleukin; IL-1 receptor; cancer; inflammation.
XX
XX Mus sp.
XX
XX WO200102571-A2.
XX
XX 11-JAN-2001.
XX
XX 07-JUL-2000; 2000WO-US18710.
XX
XX 07-JUL-1999; 99US-0348942.
XX 13-OCT-1999; 99US-0417455.
XX 08-DEC-1999; 99US-0457626.
XX 10-MAR-2000; 2000US-0523552.
XX 22-MAY-2000; 2000US-0576008.
XX
XX (HYSE-) HYSEQ INC.

XX Ford J, Pace A;
XX WPI; 2001-071582/08.
XX Isolated nucleic acids encoding interleukin-1 (IL-1) receptor
XX antagonist proteins (referred as IL-1hY1), useful in the treatment of
XX cancer, e.g. breast adenocarcinoma and brain tumors, and an
XX inflammatory disease mediated by IL-18 -
XX Disclosure; Page 177; 179pp; English.
XX The present invention relates to interleukin (IL)-1 receptor
XX antagonist proteins. IL-1hY1 is useful for treating cancer,
XX an inflammatory disease mediated by IL-18, inflammation
XX resulting from infection or allergic reactions, and inflammation
XX associated with chronic bronchitis, arthritis, diabetes or
XX endothermia.
XX Sequence 155 AA;
XX
XX Query Match 99.4%; Score 155; DB 22; Length 155;
XX Best Local Similarity 100.0%; Pred. No. 6.7e-159; Indels 0; Gaps 0;
XX Matches 155; Conservative 0; Mismatches 0;
XX
XX QY 2 MVLSGALCFRMKDSALKVLYLHNNQLLAGLHAERKVIKGEISVVPNRALDASLSPVILG 61
XX Db 1 mvlsгалcfrmkdsalkvlylhnnqllaglhaekvikgeisvvpnraldaslpvllg 60
XX
XX QY 62 VOGSGQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMGLTSSFESAAYPGWF 121
XX Db 61 vqgsgqclscgtekpgilklepvnimelylgakeskstfyrddmgltsfesaaypgwf 120
XX
XX QY 122 LCTSPADQPVRLTQIPEDPAWDAPITDFYFQQCD 156
XX Db 121 lctspadqpvrltqipdpawdapitdfyfqqcd 155
XX
XX RESULT 8
XX AAB48828
XX ID AAB48828 standard; Protein; 155 AA.
XX AC AAB48828;
XX
XX DT 09-MAR-2001 (first entry)
XX
XX Murine interleukin-1 homologue 3 (IL-1H3).
XX
XX Interleukin-1 homologue 3; IL-1H3; mouse; murine; drug screening;
XX agonist; antagonist; human disease; chronic inflammation;
XX acute inflammation; septicemia; autoimmune disease; psoriasis;
XX inflammatory bowel disease; arthritis; transplant rejection; infection;
XX graft versus host disease; acute respiratory distress syndrome; allergy;
XX asthma; restenosis; stroke; ischaemia; brain injury; AIDS; bone disease;
XX osteoporosis; cancer; lymphoproliferative disorder; atherosclerosis;
XX congestive heart failure; Alzheimer's disease; immunosuppressive;
XX antimicrobial; neuroprotective.
XX
XX Mus musculus.
XX
XX WO200071583-A1.
XX
XX 30-NOV-2000.
XX
XX 24-MAY-2000; 2000WO-US14200.
XX
XX 24-MAY-1999; 99US-0135599.
XX
XX 23-MAY-2000; 2000US-0577715.
XX
XX (SMK) SMITHKLINE BEECHAM CORP.
XX (SMK) SMITHKLINE BEECHAM PLC.

PI Smith RF, Young PR, McDonnell PC, Halsey W;
XX WPI: 2001-025138/03.
XX N-PSDB; AAC81700.
XX
XX Murine interleukin-1 homolog polypeptide used for screening modulators
XX of the polypeptide which can be used for treating autoimmune diseases,
XX cancer, brain injury and bone disorders -
XX Claim 2; Page 28-29; 31pp; English.
XX
XX The invention relates to murine interleukin-1 homologue 3 (IL-1H3;
XX AAB48828) and nucleic acids which encode it (cDNA given in AAC81700),
XX including nucleic acid sequences with at least 95% identity to AAC81700.
XX The invention also relates to expression vectors and host cells
XX comprising murine IL-1H3 nucleic acids, the recombinant production of
XX murine IL-1H3, methods of screening for modulators of IL-1H3 activity,
XX and IL-1H3 agonists and antagonists thus identified. IL-1H3 agonists and
XX antagonists are of use for treating human diseases such as chronic or
XX acute inflammation, septicemia, autoimmune diseases (e.g.,
XX inflammatory bowel disease, psoriasis and arthritis), transplant
XX rejection, graft versus host disease, infection, stroke, ischaemia,
XX acute respiratory distress syndrome, allergies, asthma, restenosis,
XX brain injury, AIDS, bone diseases (e.g., osteoporosis), cancers
XX (e.g., lymphoproliferative disorders), congestive heart failure,
XX atherosclerosis and Alzheimer's disease. The present sequence
XX represents murine IL-1H3.
XX Sequence 155 AA;
XX
XX Query Match 99.4%; Score 155; DB 22; Length 155;
XX Best Local Similarity 100.0%; Pred. No. 6.7e-159; Indels 0; Gaps 0;
XX Matches 155; Conservative 0; Mismatches 0;
XX
XX QY 2 MVLSGALCFRMKDSALKVLYLHNNQLLAGLHAERKVIKGEISVVPNRALDASLSPVILG 61
XX Db 1 mvlsгалcfrmkdsalkvlylhnnqllaglhaekvikgeisvvpnraldaslpvllg 60
XX
XX QY 62 VOGSGQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMGLTSSFESAAYPGWF 121
XX Db 61 vqgsgqclscgtekpgilklepvnimelylgakeskstfyrddmgltsfesaaypgwf 120
XX
XX QY 122 LCTSPADQPVRLTQIPEDPAWDAPITDFYFQQCD 156
XX Db 121 lctspadqpvrltqipdpawdapitdfyfqqcd 155
XX
XX RESULT 9
XX AAE06663
XX ID AAE06663 standard; Protein; 154 AA.
XX AC AAE06663;
XX
XX DT 16-OCT-2001 (first entry)
XX
XX Mouse interleukin-1delta (IL-1delta) protein.
XX
XX Mouse; interleukin-1delta; IL-1delta; virucide; hepatotropic; fever;
XX immunological disorder; tumour; inflammatory disorder; hypoglycaemia;
XX autoimmune disease; pulmonary tuberculosis; fulminant hepatitis; leprosy;
XX psoriasis; viral infection; allergy; cytokine; HIV; drug screening.
XX
XX Mus sp.
XX
XX WO200157219-A2.
XX
XX 09-AUG-2001.
XX
XX 01-FEB-2001; 2001WO-US03285.
XX
XX 02-FEB-2000; 2000US-0179638.

PA (SCHE) SCHERING CORP.
XX
PI Debets JEMA, Timans JC, Bazan JF, Kastelein RA;
XX
XX WPT; 2001-488886/53.
DR
XX Novel isolated or recombinant antigenic interleukin-1 delta or epsilon
PT polypeptide useful for treating conditions exhibiting abnormal
PT expression of interleukin such as immunological disorders, tumor and
PT allergy -
XX
XX Disclosure; Fig 1; 103pp; English.
PS
XX The invention relates to recombinant antigenic interleukin-1 like
CC molecules and their corresponding nucleic acid sequences, designated
CC as interleukin-1delta (IL-1delta) and interleukin-1epsilon (IL-1epsilon).
CC IL-1delta and IL-1epsilon are useful for treating conditions exhibiting
CC abnormal expression of the interleukin such as immunological disorders,
CC tumours, inflammatory disorders, fever, hypoglycaemia, psoriasis,
CC allergy, autoimmune diseases and infectious diseases (e.g., pulmonary
CC tuberculosis, leprosy, fulminant hepatitis, and viral infections such as
CC HIV). The invention also relates to methods of using the composition
CC containing IL-1delta or IL-1epsilon for both diagnostic and therapeutic
CC utilities. IL-1delta is used as an immunogen for the production of
CC antisera or antibodies specific, e.g., capable of distinguishing between
CC IL-1 family members and an IL-1delta, for the interleukin or its
CC fragment. The purified interleukin is used as a reagent to detect any
CC antibodies generated in response to the presence of elevated levels of
CC expression, or immunological disorders which lead to antibody production
CC to the endogenous cytokine. The invention also contemplates the use of
CC competitive drug screening assays. The present sequence is mouse
CC interleukin-1delta (IL-1delta) protein related to the invention.
XX
SQ Sequence 154 AA;

Query Match 98.7%; Score 154; DB 22; Length 154;
Best Local Similarity 100.0%; Pred. NO. 8e-156;
Matches 154; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 VLSGALCFMRKDSALKVLYLHNNQLAGLHAERKVEISVVPNRALDASLSPVLGV 62
DB 1 VLSGALCFMRKDSALKVLYLHNNQLAGLHAERKVEISVVPNRALDASLSPVLGV 60

QY 63 QGSGQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMLGTLSSPESAAYPQWFL 122
DB 61 QGSGQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMLGTLSSPESAAYPQWFL 120

QY 123 CTSPEADQPVRLTQIPEDPAWDAPITDIFYQQCD 156
DB 121 CTSPEADQPVRLTQIPEDPAWDAPITDIFYQQCD 154

RESULT 10
RAY97068
ID AAY97068 standard; Protein; 94 AA.
XX
AC AAY97068;
XX
DT 31-OCT-2000 (first entry)
XX
DE Murine IL-1 receptor antagonist 3 EST W08205 product.
XX
KW mIL-1ra3; interleukin-1 receptor antagonist-3; IL-1p; osteopathic;
KW interleukin-1-like polypeptide; anti-inflammatory; anti-asthmatic;
KW anti-arthritis; antimicrobial; respiratory; anti-ischemic; vaccine;
KW dermatological; immunomodulatory; gastrointestinal; gene therapy.
XX
OS Mus sp.
XX
XX WO200039297-A2.
PN
XX 06-JUL-2000.
PD

XX 22-DEC-1999; 99WO-US30720.
PF
XX 23-DEC-1998; 98US-0113430.
PR
XX 23-JAN-1999; 99US-0116843.
PR
XX 13-APR-1999; 99US-0129122.
PR
XX (GETH) GENENTECH INC.
PA
XX Goddard A, Pan J;
PI
XX WPI; 2000-452395/39.
XX
DR N-PSDB; AAA51600.
DR
XX Nucleic acids encoding interleukin-1-like polypeptides, useful for
PT preventing and treating e.g. inflammation, asthma and psoriasis
PT
XX Example 1; Fig 10; 143pp; English.
PS
XX An isolated nucleic acid molecule encoding an interleukin-1-like
CC polypeptide (IL-1p) that retains one or more activities of the peptide
CC from which it is derived, such as the IL-18R binding activity of a human
CC interleukin-1 receptor antagonist-1 (hIL-1ra1) polypeptide, is new. The
CC nucleic acids may be used in molecular engineering applications, e.g.
CC hybridization assays and chromosome and gene mapping studies, for
CC recombinantly producing the IL-1p polypeptide or for producing gene
CC knock out animals to study the role of the protein in metabolism and
CC disease processes (conversely, gene therapy protocols may be used to
CC supplement a patient's production of the polypeptide or to rectify
CC mutations that lead to the production of in active peptides). The
CC peptides produced may be used to screen for and produce modulators (e.g.
CC antibodies) of IL-1p protein expression and activity which may be used
CC to treat disorders associated with inappropriate IL-1p expression and
CC activity, such as inflammatory disorders, asthma, arthritis,
CC osteoarthritis, sepsis, acute lung injury, adult respiratory distress
CC syndrome, idiopathic pulmonary fibrosis, ischemic reperfusion disease,
CC psoriasis, graft versus host disease and/or inflammatory bowel disease.
XX
SQ Sequence 94 AA;

Query Match 60.3%; Score 94; DB 21; Length 94;
Best Local Similarity 100.0%; Pred. NO. 2.5e-93;
Matches 94; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MMVLSGALCFMRKDSALKVLYLHNNQLAGLHAERKVEISVVPNRALDASLSPVL 60
DB 1 mmvlsгалcfmrkdsalkvlylhnnqlagllhaekvikgeeisvvpnraldaslspsvl 60

QY 61 GVGGSQCLSCGTEKGPILKLEPVNIMELYLGAK 94
DB 61 gvqgsgqclscgtekgpilklepvnimelylgak 94

RESULT 11
AAY43525
ID AAY43525 standard; Protein; 80 AA.
XX
AC AAY43525;
XX
DT 26-JAN-2000 (first entry)
XX
DE A human interleukin-1 receptor antagonist.
XX
KW Human; interleukin-1 receptor; IL-1; antagonist; sepsis;
KW acute pancreatitis; endotoxin shock; cytokine induced shock;
KW rheumatoid arthritis; chronic inflammatory arthritis;
KW pancreatic cell damage; diabetes mellitus type 1;
KW graft versus host disease; inflammatory bowel disease;
KW inflammation; pulmonary disease; autoimmune disease;
KW inflammatory disease; antiproliferative; myelogenous leukemia;
KW premature labor; intrauterine infection; nutritional activity;
KW hematopoiesis regulating activity; tissue growth activity;

activin activity; inhibin activity; chemotactic activity;
chemokinetic activity; hemostatic activity; thrombolytic activity;
anti-inflammatory activity.
Homo sapiens.
WO9951744-A2.
14-OCT-1999.
05-APR-1999; 99WO-US04291.
03-APR-1998; 98US-0055010.
15-MAY-1998; 98US-0079909.
20-MAY-1998; 98US-0082364.
19-JUN-1998; 98US-0099818.
31-JUL-1998; 98US-0127698.
13-JAN-1999; 99US-0229591.
17-FEB-1999; 99US-0251370.
(HYSE-) HYSEQ INC.
Drmanac R, Crkvenjakov R, Dickson M, Drmanac S, Labat I;
Leshkowitz D, Kita D, Ford J, Pace A, Alfenito M;
WPI; 1999-611042/52.
N-FSDB; AAZ30048, AAZ30049.
New isolated interleukin-1 receptor binding polypeptides, used to treat
e.g. sepsis, shock, arthritis, pancreatitis, graft-versus-host disease,
inflammatory disease, autoimmune disease or proliferative disease -
Claim 8; Fig 3; 123pp; English.
The present sequence represents a human interleukin-1 (IL-1) receptor
antagonist. It is encoded by cDNA sequences obtained from the b2HPLS20W
cDNA library of foetal liver-spleen. The polypeptide is capable of
binding IL-1 receptors (IL-1Rs). The polynucleotides and polypeptides can
be used for the prevention or treatment of disorders involving sepsis,
acute pancreatitis, endotoxemic shock, cytokine induced shock, rheumatoid
arthritis, chronic inflammatory arthritis, pancreatic cell damage from
diabetes mellitus type 1, graft versus host disease, inflammatory bowel
disease, inflammation associated with pulmonary disease, other autoimmune
disease or inflammatory disease, an antiproliferative agent such as for
acute or chronic myelogenous leukemia or in the prevention of premature
labor secondary to intrauterine infections. They can also exhibit
activities such as e.g. nutritional activity, cytokine and cell
proliferation/differentiation activity, immune stimulating or
suppressing activity, hematopoiesis regulating activity, tissue growth
activity, activin/inhibin activity, chemotactic/chemokinetic activity,
hemostatic and thrombolytic activity, receptor/ligand activity, and
anti-inflammatory activity. The products can also be used for
detection, diagnosis and drug screening.
Sequence 80 AA;
Query Match 28.2%; Score 44; DB 20; Length 80;
Best Local Similarity 100.0%; Pred. No. 1.7e-39;
Matches 44; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 81 LEPVNIMELYLGAKESKFTFYRDMGLTSFESAAYPGWFLCT 124
|||||
Db 5 lepvnimelylgakeskftfyrdmgltsfesaaypgwflct 48
RESULT 12
AAB66663
ID AAB66663 standard; protein; 80 AA.
XX
AC AAB66663;
XX
Dt 05-APR-2001 (first entry)

Protein encoded by B2HPLS20W cDNA library sequence #2.
Interleukin; IL-1 receptor; cancer; inflammation.
Homo sapiens.
WO200102571-A2.
11-JAN-2001.
07-JUL-2000; 2000WO-US18710.
07-JUL-1999; 99US-0348942.
13-OCT-1999; 99US-0417455.
08-DEC-1999; 99US-0457626.
10-MAR-2000; 2000US-0523552.
22-MAY-2000; 2000US-0576008.
(HYSE-) HYSEQ INC.
Ford J, Pace A;
WPI; 2001-071582/08.
Isolated nucleic acids encoding interleukin-1 (IL-1) receptor
antagonist proteins (referred as IL-1hyl), useful in the treatment of
cancer, e.g. breast adenocarcinoma and brain tumors, and an
inflammatory disease mediated by IL-18 -
Claim 1; Fig 3; 179pp; English.
The present invention relates to interleukin (IL)-1 receptor
antagonist proteins. IL-1hyl is useful for treating cancer,
an inflammatory disease mediated by IL-18, inflammation
resulting from infection or allergic reactions, and inflammation
associated with chronic bronchitis, arthritis, diabetes or
endothermia.
Sequence 80 AA;
Query Match 28.2%; Score 44; DB 22; Length 80;
Best Local Similarity 100.0%; Pred. No. 1.7e-39;
Matches 44; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 81 LEPVNIMELYLGAKESKFTFYRDMGLTSFESAAYPGWFLCT 124
|||||
Db 5 lepvnimelylgakeskftfyrdmgltsfesaaypgwflct 48
RESULT 13
AAB35263
ID AAB35263 standard; Protein; 154 AA.
XX
AC AAB35263;
XX
Dt 08-MAY-2001 (first entry)
XX
De Interleukin-IL1 recombinant protein #2.
XX
KW Mouse; IL-1L1; interleukin-1 locus; IL-1beta; IL-1receptor; psoriasis;
KW Chromosome 2q13; inflammatory disease; heart disease; Graves' disease;
KW rheumatoid arthritis; inflammatory bowel disorder; diabetes; cancer;
KW osteoporosis; systemic lupus erythematosus; human.
XX
OS Unidentified.
XX
PN WO200105974-A2.
XX
PD 25-JAN-2001.
XX
PF 17-JUL-2000; 2000WO-US19508.

XX 16-JUL-1999; 99US-0144298.
XX (INTE-) INTERLEUKIN GENETICS INC.
XX Nicklin M, Barton J;
XX WPI; 2001-091974/10.
XX Nucleic acids encoding human and murine interleukin-111 polypeptides
XX useful for controlling inflammatory processes -
XX Examples; Fig 6; 150pp; English.
XX The present invention provides the protein and coding sequences of the
XX human and murine interleukin-111 (IL-111) proteins. The IL-111 gene is
XX located between the IL-1beta and IL-1receptor genes at human chromosome
XX 2q13. The sequences are useful in the diagnosis, prevention and treatment
XX of heart disease, cancer and inflammatory diseases such as rheumatoid
XX arthritis, systemic lupus erythematosus, inflammatory bowel disorder,
XX diabetes, psoriasis, osteoporosis, lichen sclerosis, ulcerative colitis,
XX severe periodontal disease and pregnancy complications. The present
XX sequence is a recombinant IL-111 protein.
XX Sequence 154 AA;
SQ

Query Match 28.2%; Score 44; DB 22; Length 154;
Best Local Similarity 100.0%; Pred. No. 3.3e-39;
Matches 44; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 81 LEPVNMELYLGAKESKFTFYRRDMLTSSFSAAYPGWFLCT 124
Db 79 lepvnmelylgakeskftfyrddmgtltssfsaaypgwflct 122
|||||

RESULT 14
ID AAY28408 standard; Protein; 155 AA.
XX AAY28408;
XX 28-SEP-1999 (first entry)
XX Human interleukin 1 delta.
XX Interleukin 1 delta; IL-1 delta; glaucoma; ectodermal dysplasia;
XX insulin-dependent diabetes mellitus; wrinkle skin syndrome;
XX T-cell leukemia; lymphoma; tibial muscular dystrophy.
XX Homo sapiens.
XX WO9935268-A1.
XX 15-JUL-1999.
XX 08-JAN-1999; 99WO-US00514.
XX 01-JUN-1998; 98US-0087393.
XX 09-JAN-1998; 98US-0071074.
XX (IMV) IMMUNEX CORP.
XX Sims JE;
XX WPI; 1999-458310/38.
XX N-PSDB; AAX89432.
XX Murine and Human interleukin 1 delta DNA, polypeptides and its
XX fragments, useful as molecular weight markers
XX Claim 1; Page 68-69; 72pp; English.

CC The present sequence represents human interleukin 1 delta (IL-1 delta).
CC IL-1 delta proteins are useful for the determination of the molecular
CC weight of a sample protein. The protein and its fragments are useful as
CC controls for peptide fragmentation. This is useful for determining the
CC isoelectric point of a sample protein. Antibodies generated against
CC IL-1 delta and its fragmented peptides can be used to enhance the
CC accuracy of these molecular weight markers to determine the apparent
CC molecular weight and isoelectric point of a sample protein. IL-1 delta
CC can be used to screen for potential inhibitors of activity associated
CC with IL-1 delta counter-structure molecules. IL-1 delta can also be used
CC as therapeutic agents for the treatment of diseases mediated by IL-1
CC delta. IL-1 delta may be used as a reagent in studying the interleukin 1
CC (IL-1) signalling pathway, or as a reagent to block IL-1 signalling. The
CC IL-1 delta coding sequences can be used to identify human chromosome 2,
CC and to identify genes associated with certain diseases, especially with
CC region 2q11-12, including glaucoma, ectodermal dysplasia, insulin-
CC dependent diabetes mellitus, wrinkle skin syndrome, T-cell leukemia/
CC lymphoma and tibial muscular dystrophy.
XX Sequence 155 AA;
SQ

Query Match 28.2%; Score 44; DB 20; Length 155;
Best Local Similarity 100.0%; Pred. No. 3.3e-39;
Matches 44; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 81 LEPVNMELYLGAKESKFTFYRRDMLTSSFSAAYPGWFLCT 124
Db 80 lepvnmelylgakeskftfyrddmgtltssfsaaypgwflct 123
|||||

RESULT 15
ID AAY96936 standard; Protein; 155 AA.
XX AAY96936;
XX 31-OCT-2000 (first entry)
XX Human IL-1 receptor antagonist 3.
XX hIL-1ra3; human interleukin-1 receptor antagonist-3; IL-1lp; osteopathic;
XX interleukin-1-like polypeptide; anti-inflammatory; anti-asthmatic;
XX anti-arthritis; antimicrobial; respiratory; anti-ischemic; vaccine;
XX dermatological; immunomodulatory; gastrointestinal; gene therapy.
XX Homo sapiens.
XX WO200039297-A2.
XX 06-JUL-2000.
XX 22-DEC-1999; 99WO-US30720.
XX 23-DEC-1998; 98US-0113430.
XX 22-JAN-1999; 99US-0116843.
XX 13-APR-1999; 99US-0129122.
XX (GETH) GENENTECH INC.
XX Goddard A, Pan J;
XX WPI; 2000-452395/39.
XX N-PSDB; AAX51597.
XX Nucleic acids encoding interleukin-1-like polypeptides, useful for
XX preventing and treating e.g. inflammation, asthma and psoriasis
XX Claim 22; Fig 7; 143pp; English.
XX An isolated nucleic acid molecule encoding an interleukin-1-like
XX polypeptide (IL-1lp) that retains one or more activities of the peptide
XX from which it is derived, such as the IL-18R binding activity of a human

CC Interleukin-1 receptor antagonist-1 (hIL-1Ra) polypeptide, is new. The
 CC nucleic acids may be used in molecular engineering applications, e.g.
 CC hybridization assays and chromosome and gene mapping studies, for
 CC recombinantly producing the IL-1p polypeptide or for producing gene
 CC knock out animals to study the role of the protein in metabolism and
 CC disease processes (conversely, gene therapy protocols may be used to
 CC supplement a patient's production of the polypeptide or to rectify
 CC mutations that lead to the production of in active peptides). The
 CC peptides produced may be used to screen for and produce modulators (e.g.
 CC antibodies) of IL-1p protein expression and activity which may be use
 CC to treat disorders associated with inappropriate IL-1p expression and
 CC activity, such as inflammatory disorders, asthma, arthritis,
 CC osteoarthritis, sepsis, acute lung injury, adult respiratory distress
 CC syndrome, idiopathic pulmonary fibrosis, ischemic reperfusion disease,
 CC psoriasis, graft versus host disease and/or inflammatory bowel disease.
 CC
 XX
 SQ Sequence 155 AA;

Query Match 28.2%; Score 44; DB 21; Length 155;
 Best Local Similarity 100.0%; Pred. No. 3.3e-39;
 Matches 44; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 81 LEPVNMELYLGAKESKSTFYRRDMLTSSFSRAYPQWFLCT 124
 Db 80 lepvnmelylgakeskstfyrrdmltssfsraaypqwflct 123

Search completed: May 22, 2002, 16:18:25
 Job time: 121 sec

GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: May 22, 2002, 16:16:39 ; Search time 13.05 Seconds
(without alignments)
291.984 Million cell updates/sec

Title: US-09-770-528-2
Perfect score: 156
Sequence: 1 MVLGALCFRMDKSLKVL.....IPEDPAWDAPITDFYFQCD 156

Scoring table:
Gapop 60.0 , Gapext 60.0
Searched: 231628 seqs, 24425594 residues
rd size : 12

Total number of hits satisfying chosen parameters: 5

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 1000 summaries

Database : Issued Patents AA.*
1: /cgn2_6/ptodata/2/1aa/5A_COMB.pep.*
2: /cgn2_6/ptodata/2/1aa/5B_COMB.pep.*
3: /cgn2_6/ptodata/2/1aa/6A_COMB.pep.*
4: /cgn2_6/ptodata/2/1aa/6B_COMB.pep.*
5: /cgn2_6/ptodata/2/1aa/PCTUS_COMB.pep.*
6: /cgn2_6/ptodata/2/1aa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	44	28.2	80	4	US-09-417-455-3
2	44	28.2	80	4	US-09-348-942-3
3	44	28.2	155	4	US-09-417-455-5
4	44	28.2	155	4	US-09-348-942-5
5	44	28.2	155	4	US-09-316-081-5

ALIGNMENTS

RESULT 1
US-09-417-455-3
; Sequence 3, Application US/09417455
; Patent No. 6294655
; GENERAL INFORMATION:
; APPLICANT: Ford, John
; APPLICANT: Pace, Ann
; TITLE OF INVENTION: A NOVEL INTERLEUKIN-1 RECEPTOR ANTAGONIST AND USES THEREOF
; FILE REFERENCE: 28110/36328
; CURRENT APPLICATION NUMBER: US/09/417,455
; PRIOR FILING DATE: 1999-10-13
; PRIOR APPLICATION NUMBER: US 09/348,942
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: PCT/US99/04291
; PRIOR FILING DATE: 1999-04-05
; PRIOR APPLICATION NUMBER: US 09/287,210
; PRIOR FILING DATE: 1999-04-05

; PRIOR APPLICATION NUMBER: US 09/251,370
; PRIOR FILING DATE: 1999-02-17
; PRIOR APPLICATION NUMBER: US 09/229,591
; PRIOR FILING DATE: 1999-01-13
; PRIOR APPLICATION NUMBER: US 09/127,698
; PRIOR FILING DATE: 1998-07-31
; PRIOR APPLICATION NUMBER: US 09/099,818
; PRIOR FILING DATE: 1998-06-19
; PRIOR APPLICATION NUMBER: US 09/082,364
; PRIOR FILING DATE: 1998-05-20
; PRIOR APPLICATION NUMBER: US 09/079,909
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: US 09/055,010
; PRIOR FILING DATE: 1998-04-03
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 3
; LENGTH: 80
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-417-455-3

Query Match 28.2%; Score 44; DB 4; Length 80;
Best Local Similarity 100.0%; Pred. No. 2.2e-38;
Matches 44; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 81 LEPVNMELYLGAKESKSFYRRDMGLTSSFSFSAAYPGWFLCT 124
Db 5 LEPVNMELYLGAKESKSFYRRDMGLTSSFSFSAAYPGWFLCT 48
|||||

RESULT 2
US-09-348-942-3
; Sequence 3, Application US/09348942
; Patent No. 6337072
; GENERAL INFORMATION:
; APPLICANT: John Ford
; TITLE OF INVENTION: A NOVEL INTERLEUKIN-1 RECEPTOR ANTAGONIST AND USES THEREOF
; FILE REFERENCE: 28110/35801
; CURRENT APPLICATION NUMBER: US/09/348,942
; CURRENT FILING DATE: 1999-07-07
; EARLIER APPLICATION NUMBER: PCT/US99/04291
; EARLIER FILING DATE: 1999-04-05
; EARLIER APPLICATION NUMBER: US 09/287,210
; EARLIER FILING DATE: 1999-04-05
; EARLIER APPLICATION NUMBER: US 09/251,370
; EARLIER FILING DATE: 1999-02-17
; EARLIER APPLICATION NUMBER: US 09/229,591
; EARLIER FILING DATE: 1999-01-13
; EARLIER APPLICATION NUMBER: US 09/127,698
; EARLIER FILING DATE: 1998-07-31
; EARLIER APPLICATION NUMBER: US 09/099,818
; EARLIER FILING DATE: 1998-06-19
; EARLIER APPLICATION NUMBER: US 09/082,364
; EARLIER FILING DATE: 1998-05-20
; EARLIER APPLICATION NUMBER: US 09/079,909
; EARLIER FILING DATE: 1998-05-15
; EARLIER APPLICATION NUMBER: US 09/055,010
; EARLIER FILING DATE: 1998-04-03
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 3
; LENGTH: 80
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-348-942-3

Query Match 28.2%; Score 44; DB 4; Length 80;
Best Local Similarity 100.0%; Pred. No. 2.2e-38;
Matches 44; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

; EARLIER APPLICATION NUMBER: US 09/127,698

DE IL-1L1 PROTEIN (INTERLEUKIN-1 HOMOLOG 3).
GN IL1F5 OR IL1H1.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RA Barton J.L., Nicklin M.J.H.;
RT "IL-1L1: A Novel Member of the Interleukin-1 Gene Family is Expressed
in Trophoblasts and Macrophages";
RL Submitted (OCT-1999) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=20209405; PubMed=10744718;
RA Kumar S., McDonnell P.C., Lehr R., Tierney L., Taimas M.N.,
RA Griswold D.E., Capper E.A., Tal-Singer R., Wells G.I., Doyle M.L.,
RA Young P.R.;
RT "Identification and initial characterization of four novel members of
the interleukin-1 family";
RL J. Biol. Chem. 275:10308-10314(2000).
DR EMBL; AJ250429; CAB59831.1; -;
DR EMBL; AF200495; AAF69251.1; -;
DR HSP; P18510; 1ILR.
DR MGD; MGI:1859325; 1ILF5.
DR InterPro; IPR000975; Interleukin_1.
DR Pfam; PF00340; IL1; 1.
DR ProDom; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
DR PROSITE; PS00253; INTERLEUKIN_1; 1.
SQ SEQUENCE 155 AA; 17004 MW; A4B1770F2E12533A CRC64;

Query Match 99.4%; Score 155; DB 11; Length 155;
Best Local Similarity 100.0%; Pred. No. 1.7e-157;
Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 MVLSGALCFRMDKSLKVLVYLNHNNOLLAGGLHAERKVIKGEISVVPNRALDASLSPVILG 61
DB 1 MVLSGALCFRMDKSLKVLVYLNHNNOLLAGGLHAERKVIKGEISVVPNRALDASLSPVILG 60

QY 62 VGGSGQLSCGTEKGPILKLEPVNIMELYLGAKESKFTFYRRDMLGTSFESAAYPGWGF 121
DB 61 VGGSGQLSCGTEKGPILKLEPVNIMELYLGAKESKFTFYRRDMLGTSFESAAYPGWGF 120

QY 122 LCTSPADQPVRLTQIPEDPANDAPITDFYFQQCD 156
DB 121 LCTSPADQPVRLTQIPEDPANDAPITDFYFQQCD 155

RESULT 3
Q9UBH0 PRELIMINARY; PRT; 155 AA.
AC Q9UBH0;
DT 01-MAY-2000 (TREMBLrel. 13, Created)
DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)
DT 01-OCT-2001 (TREMBLrel. 18, Last annotation update)
DE F1L1 DELTA (INTERLEUKIN-1 LIKE PROTEIN 1) (INTERLEUKIN-1 RECEPTOR
ANTAGONIST HOMOLOG 1) (INTERLEUKIN-1 DELTA).
GN IL1H1 OR IL1L1.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20092888; PubMed=10625660;
RA Smith D.E., Renshaw B.R., Ketchum R.R., Kubin M., Garka K.E.,
RA Sims J.E.;
RT "Four New Members Expand the IL-1 Superfamily";
RL J. Biol. Chem. 275:1169-1175(2000).
RN [2]
RP SEQUENCE FROM N.A.

RX MEDLINE=99443727; PubMed=10512743;
RA Mulero J.J., Pace A.M., Nelken S.T., Loeb D.B., Correa T.R.,
RA Drmanac R., Ford J.E.;
RT "ILH1: A Novel Interleukin-1 Receptor Antagonist Gene";
RL Biochem. Biophys. Res. Commun. 263:702-706(1999).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=PLACENTA;
RA Barton J.L., di Giovine F.S., Symons J.A., Nicklin M.J.H.;
RT "A tissue specific interleukin-1 receptor antagonist homolog from the
IL1 cluster lacks IL-1, IL-1ra, IL-18 and IL-18ra activities";
RL Submitted (JUN-1999) to the EMBL/GenBank/DBJ databases.
RN [4]
RP SEQUENCE FROM N.A.
RA Barton J.L., Herbst R., Bosio D., Nicklin M.J.H.;
RT "A tissue specific interleukin-1 receptor antagonist homolog from the
IL-1 cluster lacks IL-1, IL-1ra, IL-18 and IL-18ra activities";
RL Submitted (JAN-2000) to the EMBL/GenBank/DBJ databases.
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE=20322477; PubMed=10866108;
RA Mulero J.J., Nelken S.T., Ford J.E.;
RT "Organization of the Human Interleukin-1 Receptor Antagonist Gene
ILH1";
RL Immunogenetics 51:425-428(2000).
RN [6]
RP SEQUENCE FROM N.A.
RA Debets R., Timans J.C., Zurawski S., Sana T.R., Bazan F.,
RA Kastelein R.A.;
RT "Novel IL-1 ligands IL-1d and IL-le use IL-1R related protein 2";
RL Submitted (FEB-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF201830; AAF25210.1; -;
DR EMBL; AF186094; AAF02757.1; -;
DR EMBL; AJ242737; CAB59822.1; -;
DR EMBL; AJ242738; CAB59823.1; -;
DR EMBL; AJ271338; CAB67704.1; -;
DR EMBL; AF216693; AAF76981.1; -;
DR EMBL; AF230377; AAF91274.1; -;
DR HSP; P18510; 1ILR.
DR InterPro; IPR000975; Interleukin_1.
DR Pfam; PF00340; IL1; 1.
DR ProDom; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
DR PROSITE; PS00253; INTERLEUKIN_1; UNKNOWN_1.
KW Receptor.
SQ SEQUENCE 155 AA; 16962 MW; B96DB5EFA2612E25 CRC64;

Query Match 28.2%; Score 44; DB 4; Length 155;
Best Local Similarity 100.0%; Pred. No. 8e-39;
Matches 44; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 81 LEPVNMELYLGAKESKFTFYRRDMLGTSFESAAYPGWFLCT 124
DB 80 LEPVNMELYLGAKESKFTFYRRDMLGTSFESAAYPGWFLCT 123

Search completed: May 22, 2002, 16:21:51
Job time: 201 sec

GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein - protein search, using sw model

Run on: May 22, 2002, 14:05:33 ; Search time 29.87 seconds
(without alignments)
580.097 Million cell updates/sec

Title: US-09-770-528-2

Perfect score: 819

Sequence: 1 MVLVSGALCFRMDKALKVL.....IPEDPAWDAPITDFYQQCD 156

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 747574 seqs, 111073796 residues

all number of hits satisfying chosen parameters: 747574

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

```

1: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1980.DAT.*
2: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1981.DAT.*
3: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1982.DAT.*
4: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1983.DAT.*
5: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1984.DAT.*
6: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1985.DAT.*
7: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1986.DAT.*
8: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1987.DAT.*
9: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1988.DAT.*
10: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1989.DAT.*
11: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1990.DAT.*
12: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1991.DAT.*
13: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1992.DAT.*
14: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1993.DAT.*
15: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1994.DAT.*
16: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1995.DAT.*
17: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1996.DAT.*
18: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1997.DAT.*
19: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1998.DAT.*
20: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA1999.DAT.*
21: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA2000.DAT.*
22: /SIDSL1/gcgdata/hold-geneseq/geneseq-emb1/AA2001.DAT.*

```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	819	100.0	156	19	AAW86284
2	819	100.0	156	20	AAW28407
3	819	100.0	156	21	AAW92260
4	819	100.0	156	21	AAW45061
5	814	99.4	155	21	AAW96937
6	814	99.4	155	22	AAW35261
7	814	99.4	155	22	AAW66672
8	814	99.4	155	22	AAW48828
9	809	98.8	154	22	AAE06663
10	734	89.6	155	20	AAW28408
11	734	89.6	155	21	AAW96936

12	734	89.6	155	21	AAW92257	Human IL-1 homolog
13	734	89.6	155	21	AAW45062	Human TANGO-93 pro
14	734	89.6	155	22	AAE06655	Human interleukin-
15	734	89.6	155	22	AAW87601	Human PRO4342. Ho
16	734	89.6	155	22	AAW35260	Human IL-1IL1. Hom
17	734	89.6	155	22	AAW35262	Interleukin-IL1 re
18	734	89.6	155	22	AAW66664	Protein encoded by
19	731	89.3	155	20	AAW43526	A human interleuki
20	729	89.0	154	22	AAW35263	Interleukin-IL1 re
21	729	89.0	157	22	AAW35264	Interleukin-IL1 re
22	727	88.8	155	21	AAW92256	Human IL-1 homolog
23	723	88.3	155	21	AAW92253	Human IL-1 homolo
24	716	87.4	155	21	AAW92254	Generic human IL-1
25	716	87.4	155	21	AAW92255	Generic human IL-1
26	501.5	61.2	258	22	ABG22711	Novel human diagno
27	474	57.9	94	21	AAW97068	Murine IL-1 recept
28	465.5	56.8	104	22	AAW35266	A human interleuki
29	393	48.0	80	20	AAW43525	Interleukin-IL1 pe
30	393	48.0	80	22	AAW66663	Protein encoded by
31	344	42.0	98	21	AAW97067	Human IL-1 recepto
32	334	40.8	171	22	AAW50219	Interleukin-1 rece
33	319.5	39.0	178	20	AAW33281	Mouse interleukin-
34	319.5	39.0	178	22	AAW66665	Mouse interleukin-
35	316.5	38.6	154	22	AAW84999	Human interleukin-
36	316.5	38.6	178	20	AAW43527	Mouse interleukin-
37	312	38.1	152	22	AAW50220	Mouse interleukin-
38	312	38.1	152	22	AAE05841	Mouse IL-1 theta
39	312	38.1	152	22	AAW19925	Mouse interleukin-
40	310.5	37.9	159	16	AAW73642	icIL-1ra. Homo sa
41	309	37.7	152	22	AAW50217	Human interleukin-
42	309	37.7	152	22	AAE05840	Human IL-1 theta
43	309	37.7	152	22	AAW19922	Human interleukin-
44	309	37.7	169	22	AAW19923	Human interleukin-
45	309	37.7	180	22	ABW11747	Human IL-1 delta h

ALIGNMENTS

```

RESULT 1
AAW86284
ID AAW86284 standard; Protein; 156 AA.
AC AAW86284;
XX
XX 19-FEB-1999 (first entry)
DT
XX
XX Rodent interleukin (IL)-1 delta polypeptide.
DE
XX
XX Interleukin; IL-1 delta; polyclonal antibody; IL-1 epsilon; cytokine;
KW Inflammatory response; immune system; diagnosis; agonist; antagonist;
KW chemokine.
XX
OS Mus sp.
XX
XX WO9847921-A1.
XX
XX 29-OCT-1998.
PD
XX
XX 17-APR-1998; 98WO-US06879.
PF
XX
XX 06-AUG-1997; 97US-0055111.
PR 21-APR-1997; 97US-0837627.
XX
XX (SCHE ) SCHERING CORP.
XX
XX Bazan JF, Hedrick JA, Kastelein RA, Sana TR;
XX
XX WPI; 1998-609976/51.
XX
XX N-PSDB; AAW1958.
XX
XX Mammalian interleukin 1-delta and 1-epsilon - useful for, e.g.
XX regulating the immune system and inflammatory responses
PT

```

XX
PS
XX
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
XX
SQ

Claim 1; Pages 89-90; 113pp; English.

This represents a rodent interleukin (IL)-1 delta polypeptide. The invention relates to a recombinant polypeptide that specifically binds polyclonal antibodies (Abs) generated against a 12 consecutive amino acid segment of IL-1 delta or IL-1 epsilon. Agonists or antagonists of these IL polypeptides are used to regulate a cell involved in an inflammatory response. The IL-1 delta or IL-1 epsilon polypeptides and peptides are used to produce Abs and antigen-Abs complexes. The polypeptides, Abs and the corresponding nucleic acids regulate development and/or the immune system, and can be used to diagnose and treat conditions associated with abnormal expression of IL. Agonists or antagonists of IL-1 delta or IL-1 epsilon polypeptides are used with agonists or antagonists of IL-1 alpha, IL-1 beta, IL-1 gamma, IL-2 and/or IL-12. The IL-1 delta or IL-1 epsilon polypeptides may be used as a soluble polypeptide or as a fusion protein with another cytokine or chemokine.

Sequence 156 AA;

Query Match 100.0%; Score 819; DB 19; Length 156;
Best Local Similarity 100.0%; Pred. No. 2.7e-87;
Matches 156; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MMVLGALCFRMDKSAKLVLYLHNNQLLAGLHAKEVKGEEISVVPNRALDASLSPVIL 60
|||||
DB 1 mmvlsalcfmrkdsalkvlylhnnqlagglhaekvkgseisvvpnralspsvll 60
|||||

QY 61 GVGGSGQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMGLTSSFESAAYPGW 120
|||||

DB 61 gvqgsgqclscgtekpgllklepvnimelylgakeskstfyrddmgltsfesaaypgw 120
|||||

QY 121 FLCTSPADQPVRLTQIPEDPAWDAPITDFYFQQCD 156
|||||

DB 121 flctspadqpvrltqipdpawdapitdfyfqqcd 156
|||||

RESULT 2
AAV28407
ID AAY28407 standard; Protein; 156 AA.
XX
AC AAY28407;
XX
XX
DT 28-SEP-1999 (first entry)
XX
XX Mouse interleukin 1 delta.
XX
XX Interleukin 1 delta; IL-1 delta; glaucoma; ectodermal dysplasia;
XX Insulin-dependent diabetes mellitus; wrinkly skin syndrome;
XX T-cell leukemia; lymphoma; tibial muscular dystrophy.
XX
XX Mus musculus.
XX WO9935268-A1.
XX
XX
XX 15-JUL-1999.
XX
XX 08-JAN-1999; 99WO-US00514.
XX
XX 01-JUN-1998; 98US-0087393.
XX 09-JAN-1998; 98US-0071074.
XX
XX (IMMV) IMMUNEX CORP.
XX
XX
XX Sims JE;
XX
XX WPI; 1999-458310/38.
XX N-PSDB; AAY89431.
XX
XX Murine and Human interleukin 1 delta DNA, polypeptides and its
XX fragments, useful as molecular weight markers
XX

PS
XX
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
CC
XX
SQ

Claim 1; Page 67; 72pp; English.

The present sequence represents mouse interleukin 1 delta (IL-1 delta). IL-1 delta proteins are useful for the determination of the molecular weight of a sample protein. The protein and its fragments are useful as controls for peptide fragmentation. This is useful for determining the isoelectric point of a sample protein. Antibodies generated against IL-1 delta and its fragmented peptides can be used to enhance the accuracy of these molecular weight markers to determine the apparent molecular eight and isoelectric point of a sample protein. IL-1 delta can be used to screen for potential inhibitors of activity associated with IL-1 delta counter-structure molecules. IL-1 delta can also be used as therapeutic agents for the treatment of diseases mediated by IL-1 delta. IL-1 delta may be used as a reagent in studying the interleukin 1 (IL-1) signalling pathway, or as a reagent to block IL-1 signalling. The IL-1 delta coding sequences can be used to identify human chromosome 2, and to identify genes associated with certain diseases, especially with region 2q11-12, including glaucoma, ectodermal dysplasia, insulin-dependent diabetes mellitus, wrinkly skin syndrome, T-cell leukemia/lymphoma and tibial muscular dystrophy.

Sequence 156 AA;

Query Match 100.0%; Score 819; DB 20; Length 156;
Best Local Similarity 100.0%; Pred. No. 2.7e-87;
Matches 156; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MMVLGALCFRMDKSAKLVLYLHNNQLLAGLHAKEVKGEEISVVPNRALDASLSPVIL 60
|||||
DB 1 mmvlsalcfmrkdsalkvlylhnnqlagglhaekvkgseisvvpnralspsvll 60
|||||

QY 61 GVGGSGQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMGLTSSFESAAYPGW 120
|||||

DB 61 gvqgsgqclscgtekpgllklepvnimelylgakeskstfyrddmgltsfesaaypgw 120
|||||

QY 121 FLCTSPADQPVRLTQIPEDPAWDAPITDFYFQQCD 156
|||||

DB 121 flctspadqpvrltqipdpawdapitdfyfqqcd 156
|||||

RESULT 3
AAV92260
ID AAY92260 standard; Protein; 156 AA.
XX
AC AAY92260;
XX
XX 10-AUG-2000 (first entry)
XX
XX Murine IL-1 homologue, zilla3.
XX
XX Generic; interleukin-1; IL-1; homologue; zilla3; anti-inflammatory;
XX antagonist; pro-inflammatory; agonist; immunomodulator; antiathritic;
XX antirheumatic; osteopathic; antipsoriatic; antibacterial; cytostatic;
XX immunosuppressive; antiulcer; antidiabetic; nephrotropic; vasotropic;
XX vulnary; 2q14.
XX
XX Mus musculus.
XX
XX WO200020595-A1.
XX
XX 13-APR-2000.
XX
XX 08-OCT-1999; 99WO-US23533.
XX
XX 08-OCT-1998; 98US-0169745.
XX
XX (ZYMO) ZYMOGENETICS INC.
XX
XX Sheppard PO, West RR, Clegg CH;
XX
XX WPI; 2000-303780/26.
XX N-PSDB; AAA09198.
XX

PD 06-JUL-2000.
 XX 22-DEC-1999; 99WO-US30720.
 XX 23-DEC-1998; 98US-0113430.
 PR 22-JAN-1999; 99US-0116843.
 PR 13-APR-1999; 99US-0129122.
 XX (GETH) GENENTECH INC.
 PA Goddard A, Pan J;
 PI WPI; 2000-452395/39.
 XX N-PSDB; RAA51599.
 DR Nucleic acids encoding interleukin-1-like polypeptides, useful for
 PT preventing and treating e.g. inflammation, asthma and psoriasis
 XX Claim 22; Fig 9A-B; 143pp; English.
 XX An isolated nucleic acid molecule encoding an interleukin-1-like
 CC polypeptide (IL-1lp) that retains one or more activities of the peptide
 CC from which it is derived, such as the IL-18R binding activity of a human
 CC interleukin-1 receptor antagonist-1 (hIL-1ra1) polypeptide, is new. The
 CC nucleic acids may be used in molecular engineering applications, e.g.
 CC hybridization assays and chromosome and gene mapping studies, for
 CC recombinantly producing the IL-1lp polypeptide or for producing gene
 CC knock out animals to study the role of the protein in metabolism and
 CC disease processes (conversely, gene therapy protocols may be used to
 CC supplement a patient's production of the polypeptide or to rectify
 CC mutations that lead to the production of in active peptides). The
 CC peptides produced may be used to screen for and produce modulators (e.g.
 CC antibodies) of IL-1lp protein expression and activity which may be use
 CC to treat disorders associated with inappropriate IL-1lp expression and
 CC activity, such as inflammatory disorders, asthma, arthritis,
 CC osteoarthritis, sepsis, acute lung injury, adult respiratory distress
 CC syndrome, idiopathic pulmonary fibrosis, ischemic reperfusion disease,
 CC psoriasis, graft versus host disease and/or inflammatory bowel disease.
 XX Sequence 155 AA;
 SQ

Query Match 99.4%; Score 814; DB 21; Length 155;
 Best Local Similarity 100.0%; Pred. No. 1e-86;
 Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 MVLGALCFRMDKSAKLVLYLHNNQLLAGLHAEKVIKGEISVVPNRDALDASLSPVILG 61
 DB 1 mvlsgalcfmrkdsalkvlylhnnqlaggghaekvikgeisvvpnraldaslsplvg 60
 QY 62 VQGSQCLSCGTEKGPILKLEPNIMELYLGAKESKFTFYRRDMGLTSSFESAAYPGWF 121
 DB 61 vqgsgqlscgtekqplklevpnimelylgakeskftfyrddmgltsfesaaypgwf 120
 QY 122 LCTSPADQPVRLTQIPEDPAWDAPITDFYFQQCD 156
 DB 121 lctspadqpvrltqipepdawdapidtdfyfqqcd 155

RESULT 6
 AAB35261
 ID AAB35261 standard; Protein; 155 AA.
 AC AAB35261;
 XX
 XX 08-MAY-2001 (first entry)
 DT Murine IL-1L1.
 DE
 XX Mouse; IL-1L1; Interleukin-1 locus; IL-1beta; IL-1receptor; psoriasis;
 KW chromosome 2q13; inflammatory disease; heart disease; Graves' disease;
 KW rheumatoid arthritis; inflammatory bowel disorder; diabetes; cancer;
 KW osteoporosis; systemic lupus erythematosus.

XX Mus sp.
 OS WO200105974-A2.
 PN 25-JAN-2001.
 PD 17-JUL-2000; 2000WO-US19508.
 XX 16-JUL-1999; 99US-0144298.
 PR (INTE-) INTERLEUKIN GENETICS INC.
 XX Nicklin M, Barton J;
 PI WPI; 2001-091974/10.
 DR Nucleic acids encoding human and murine interleukin-1l1 polypeptides
 XX useful for controlling inflammatory processes -
 PT Claim 11; Fig 3; 150pp; English.
 XX The present invention provides the protein and coding sequences of the
 CC human and murine interleukin-1l1 (IL-1l1) proteins. The IL-1l1 gene is
 CC located between the IL-1beta and IL-1receptor genes at human chromosome
 CC 2q13. The sequences are useful in the diagnosis, prevention and treatment
 CC of heart disease, cancer and inflammatory diseases such as rheumatoid
 CC arthritis, systemic lupus erythematosus, inflammatory bowel disorder,
 CC diabetes, psoriasis, osteoporosis, lichen sclerosis, ulcerative colitis,
 CC severe periodontal disease and pregnancy complications. The present
 CC sequence is the murine IL-1l1 protein.
 XX Sequence 155 AA;
 SQ

Query Match 99.4%; Score 814; DB 22; Length 155;
 Best Local Similarity 100.0%; Pred. No. 1e-86;
 Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 MVLGALCFRMDKSAKLVLYLHNNQLLAGLHAEKVIKGEISVVPNRDALDASLSPVILG 61
 DB 1 mvlsgalcfmrkdsalkvlylhnnqlaggghaekvikgeisvvpnraldaslsplvg 60
 QY 62 VQGSQCLSCGTEKGPILKLEPNIMELYLGAKESKFTFYRRDMGLTSSFESAAYPGWF 121
 DB 61 vqgsgqlscgtekqplklevpnimelylgakeskftfyrddmgltsfesaaypgwf 120
 QY 122 LCTSPADQPVRLTQIPEDPAWDAPITDFYFQQCD 156
 DB 121 lctspadqpvrltqipepdawdapidtdfyfqqcd 155

RESULT 7
 AAB66672
 ID AAB66672 standard; protein; 155 AA.
 AC AAB66672;
 XX
 XX 05-APR-2001 (first entry)
 DT Invention related sequence #4.
 DE Interleukin; IL-1 receptor; cancer; inflammation.
 XX
 XX Mus sp.
 OS WO200102571-A2.
 PN 11-JAN-2001.
 PD 07-JUL-2000; 2000WO-US18710.
 XX 07-JUL-1999; 99US-0348942.
 PR

PD 09-AUG-2001.
XX
PF 01-FEB-2001; 2001WO-US03285.
XX
PR 02-FEB-2000; 2000US-0179638.
XX
XX (SCHE) SCHERING CORP.
PA Debets JEMA, Timans JC, Bazan JF, Kastelein RA;
XX
PI WPI; 2001-48886/53.
XX
XX Novel isolated or recombinant antigenic interleukin-1 delta or epsilon
PT polypeptide useful for treating conditions exhibiting abnormal
PT expression of interleukin such as immunological disorders, tumor and
PT allergy
XX
XX Disclosure; Fig 1; 103pp; English.
PS
CC The invention relates to recombinant antigenic interleukin-1 like
CC molecules and their corresponding nucleic acid sequences, designated
CC as interleukin-1delta (IL-1delta) and interleukin-1epsilon (IL-1epsilon).
CC IL-1delta and IL-1epsilon are useful for treating conditions exhibiting
CC abnormal expression of the interleukin such as immunological disorders,
CC tumors, inflammatory disorders, fever, hypoglycaemia, psoriasis,
CC allergy, autoimmune diseases and infectious diseases (e.g., pulmonary
CC tuberculosis, leprosy, fulminant hepatitis, and viral infections such as
CC HIV). The invention also relates to methods of using the composition
CC containing IL-1delta or IL-1epsilon for both diagnostic and therapeutic
CC utilities. IL-1delta is used as an immunogen for the production of
CC antisera or antibodies specific, e.g., capable of distinguishing between
CC IL-1 family members and an IL-1delta, for the interleukin or its
CC fragment. The purified interleukin is used as a reagent to detect any
CC antibodies generated in response to the presence of elevated levels of
CC expression, or immunological disorders which lead to antibody production
CC to the endogenous cytokine. The invention also contemplates the use of
CC competitive drug screening assays. The present sequence is mouse
CC interleukin-1delta (IL-1delta) protein related to the invention.
XX
SQ Sequence 154 AA;

Query Match 98.8%; Score 809; DB 22; Length 154;
Best Local Similarity 100.0%; Pred. No. 3.8e-86;
Matches 154; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 VLGGALCFRMDKSAALKVLYLHNNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILGV 62
Db 1 vlsgalcfmrkdsalkvlylhnnqllagglhaekvikgeelsvvpnralspsvilgv 60

QY 63 QGGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMGLTSSFSFSAAYPGWFL 122
Db 61 gggsqclscgtekpgilklepvnimelylgakeskstfyrrdmgltsfsfesaaypgwfl 120

QY 123 CTSPPADQPVRLTQIPEDPAWDAPITDIFYFOQCD 156
Db 121 ctspeadqpvrltqipdpawdapitdifyfgqcd 154

RESULT 10
AAAY28408
ID AAY28408 standard; Protein; 155 AA.
XX
AC AAY28408;
XX
XX 28-SEP-1999 (first entry)
XX
XX Human interleukin 1 delta.
XX
KW Interleukin 1 delta; IL-1 delta; glaucoma; ectodermal dysplasia;
KW insulin-dependent diabetes mellitus; wrinkly skin syndrome;
KW T-cell leukemia; lymphoma; tibial muscular dystrophy.
XX

OS Homo sapiens.
XX
PN WO9935268-A1.
XX
PD 15-JUL-1999.
XX
PF 08-JAN-1999; 99WO-US00514.
XX
PR 01-JUN-1998; 98US-0087393.
PR 09-JAN-1998; 98US-0071074.
XX
XX (IMMV) IMMUNEX CORP.
PA
XX
XX Sims JE;
PI
XX
XX WPI; 1999-458310/38.
DR N-PSDB; AAX89432.
XX
XX Murine and Human interleukin 1 delta DNA, polypeptides and its
PT fragments, useful as molecular weight markers
XX
XX Claim 1; Page 68-69; 72pp; English.
XX
CC The present sequence represents human interleukin 1 delta (IL-1 delta).
CC IL-1 delta proteins are useful for the determination of the molecular
CC weight of a sample protein. The protein and its fragments are useful as
CC controls for peptide fragmentation. This is useful for determining the
CC isoelectric point of a sample protein. Antibodies generated against
CC IL-1 delta and its fragmented peptides can be used to enhance the
CC accuracy of these molecular weight markers to determine the apparent
CC molecular eight and isoelectric point of a sample protein. IL-1 delta
CC can be used to screen for potential inhibitors of activity associated
CC with IL-1 delta counter-structure molecules. IL-1 delta can also be used
CC as therapeutic agents for the treatment of diseases mediated by IL-1
CC delta. IL-1 delta may be used as a reagent in studying the interleukin 1
CC (IL-1) signalling pathway, or as a reagent to block IL-1 signalling. The
CC IL-1 delta coding sequences can be used to identify human chromosome 2,
CC and to identify genes associated with certain diseases, especially with
CC region 2q11-12, including glaucoma, ectodermal dysplasia, insulin-
CC dependent diabetes mellitus, wrinkly skin syndrome, T-cell leukemia/
CC lymphoma and tibial muscular dystrophy.
XX
SQ Sequence 155 AA;

Query Match 89.6%; Score 734; DB 20; Length 155;
Best Local Similarity 91.0%; Pred. No. 2.1e-77;
Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;

QY 2 MVLSGALCFRMDKSAALKVLYLHNNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILG 61
Db 1 mvlsgalcfmrkdsalkvlylhnnqllagglhaekvikgeelsvvpnrwldaslspsvilg 60

QY 62 VOGGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKSTFYRRDMGLTSSFSFSAAYPGWF 121
Db 61 vggsgqclscgvgeptltlepvnimelylgakeskstfyrrdmgltsfsfesaaypgwf 120

QY 122 LCTSPADQPVRLTQIPEDPAWDAPITDIFYFOQCD 156
Db 121 lctvpeadqpvrltqipdpawdapitdifyfgqcd 155

RESULT 11
AAAY96936
ID AAY96936 standard; Protein; 155 AA.
XX
AC AAY96936;
XX
XX 31-OCT-2000 (first entry)
XX
XX Human IL-1 receptor antagonist 3.
XX
KW hIL-1RA3; human interleukin-1 receptor antagonist-3; IL-1lp; osteopathic;
XX

XX 08-OCT-1998; 98US-0169745.
 XX (ZYMO) ZYMOGENETICS INC.
 XX Sheppard PO, West RR, Clegg CH;
 XX WPI; 2000-303780/26.
 XX N-PSDB; AAA09193, AAA09194.
 XX
 XX Proteins useful for treatment of inflammatory conditions such as
 XX rheumatoid arthritis and psoriasis are agonists or antagonists forms of
 XX new interleukin-1 homologue
 XX
 XX Disclosure; Page 52-53; 64pp; English.
 XX
 XX This shows an interleukin-1 (IL-1) homologue, designated zilla3.
 XX It is believed that zilla3 acts through IL-1 receptors. In general,
 XX zilla3 proteins having a lys residue at position 148 will have
 XX anti-inflammatory activity (e.g. AA92256), whilst those having Asp
 XX (see AA92254) or Glu at this position will have pro-inflammatory
 XX action. Zilla3 is used to modulate an immune response in an animal
 XX (claimed). Antagonists zilla3 forms may be used to treat or prevent
 XX chronic inflammatory diseases such as rheumatoid arthritis,
 XX osteoarthritis and Lyme arthritis, psoriasis, to reduce tissue damage
 XX after ischemia, to treat septic shock, graft-versus-host disease and
 XX leukemia. The antagonists may also alleviate inflammatory bowel disease
 XX including Crohn's disease and ulcerative colitis, insulin-dependent
 XX diabetes mellitus, acute pancreatitis, glomerulonephritis and cerebral
 XX ischemia. Agonist forms of zilla3 may promote wound healing by IL-1
 XX effects on growth factor secretion and cell proliferation. They may also
 XX treat infections, especially gastrointestinal infections.
 XX
 XX Sequence 155 AA;

Query Match 89.6%; Score 734; DB 21; Length 155;
 Best Local Similarity 91.0%; Pred. No. 2.1e-77;
 Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;
 QY 2 MVLSGALCFRMDKSAKLVYLNHNNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILG 61
 Db 1 MVLSGALCFRMDKSAKLVYLNHNNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILG 60
 QY 62 VQGSQCLSGCTEKGPILKLEPVNIMELYLGAKESKSFYFRDMGLTSFESAAYPGWF 121
 Db 61 VQGSQCLSGCTEKGPILKLEPVNIMELYLGAKESKSFYFRDMGLTSFESAAYPGWF 120
 QY 122 LCTSPQADQVRLTQIPEDPAWDAPITDFYFQQCD 156
 Db 121 LCTVPEADQVRLTQIPEDPAWDAPITDFYFQQCD 155

RESULT 13
 AA45062
 ID AA45062 standard; Protein; 155 AA.
 XX
 XX AA45062;
 XX
 XX 31-MAY-2000 (first entry)
 XX
 XX Human TANGO-93 protein.
 XX
 XX TANGO-93; cytokine; human; secreted protein; IL-1 expression; cancer;
 XX Interleukin-1 receptor antagonist; IL-1ra; inflammation; antiasthmatic;
 XX immunosuppressive; antirheumatic; antiarthritic; antipsoriasis; asthma;
 XX antiinflammatory; antibacterial; antiulcer; cytostatic; immunomodulator;
 XX osteopathic; dermatological; antidiabetic; psoriasis; ulcerative colitis;
 XX graft vs-host disease; rheumatoid arthritis; inflammation bowel disease;
 XX septic shock; cachexia; Crohn's disease; chronic myelogenous leukaemia;
 XX liver disease; diabetes; osteoarthritis; Hodgkin's disease; Lyme disease;
 XX autoimmune disease; myasthenia gravis; pharmacogenomic; diagnosis;
 XX chromosome 2; systemic lupus erythematosus; forensic; transgenic animal.

XX Homo sapiens.
 XX OS WO200008045-A2.
 XX PN 17-FEB-2000.
 XX PD 06-AUG-1999; 99WO-US17886.
 XX PF 07-AUG-1998; 98US-0131263.
 XX PR (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.
 XX PA Pan Y;
 XX PI WPI; 2000-205669/18.
 XX DR N-PSDB; AA250812.
 XX
 XX Isolated nucleic acid sequences encoding TANGO-93 polypeptide useful
 XX for treating a variety of cellular processes e.g. asthma, rheumatoid
 XX arthritis, psoriasis and autoimmune diseases
 XX
 XX Claim 9; Fig 2; 113pp; English.
 XX
 XX The present sequence is the human TANGO-93, a secreted protein that
 XX belongs to the cytokine superfamily. It plays a role similar to secreted
 XX Interleukin-1 receptor antagonist (IL-1ra) and its expression is
 XX developmentally regulated in the uterus, placenta and skeletal muscles.
 XX Human TANGO-93 gene is mapped to chromosome 2 within the IL-1 cluster.
 XX TANGO-93 modulates immune mediated inflammation and IL-1 gene or protein
 XX expression. TANGO-93 is useful as a modulating agent for regulating
 XX cellular processes like asthma, graft vs-host disease, rheumatoid
 XX arthritis, psoriasis, inflammatory bowel disease, septic shock,
 XX ulcerative colitis, Crohn's disease, chronic myelogenous leukaemia,
 XX cancer, liver disease, Hodgkin's disease, osteoarthritis, Lyme disease,
 XX cachexia, and autoimmune diseases e.g. myasthenia gravis, autoimmune
 XX diabetes and systemic lupus erythematosus. Partial TANGO-93 sequences
 XX are useful in forensic biology, for diagnostic and prognostic assays,
 XX prophylactic and therapeutic treatment and pharmacogenomics. The DNA
 XX sequences are useful as hybridisation probes and primers, for isolation
 XX of TANGO-93 sequence and for the creation of transgenic animals.
 XX
 XX Sequence 155 AA;

Query Match 89.6%; Score 734; DB 21; Length 155;
 Best Local Similarity 91.0%; Pred. No. 2.1e-77;
 Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;
 QY 2 MVLSGALCFRMDKSAKLVYLNHNNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILG 61
 Db 1 MVLSGALCFRMDKSAKLVYLNHNNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILG 60
 QY 62 VQGSQCLSGCTEKGPILKLEPVNIMELYLGAKESKSFYFRDMGLTSFESAAYPGWF 121
 Db 61 VQGSQCLSGCTEKGPILKLEPVNIMELYLGAKESKSFYFRDMGLTSFESAAYPGWF 120
 QY 122 LCTSPQADQVRLTQIPEDPAWDAPITDFYFQQCD 156
 Db 121 LCTVPEADQVRLTQIPEDPAWDAPITDFYFQQCD 155

RESULT 14
 AA06655
 ID AA06655 standard; Protein; 155 AA.
 XX
 XX AA06655;
 XX
 XX 16-OCT-2001 (first entry)
 XX
 XX Human Interleukin-1delta (IL-1delta) protein.
 XX
 XX Human; interleukin-1delta; IL-1delta; virucide; hepatotropic; fever;

immunological disorder; tumour; inflammatory disorder; hypoglycaemia; autoimmune disease; pulmonary tuberculosis; fulminant hepatitis; leprosy; psoriasis; viral infection; allergy; cytokine; HIV; drug screening.
Homo sapiens.

Key Location/Qualifiers
Binding-site 1..5
Binding-site 7
Region 7..11
Binding-site 12
Binding-site 14..16
Region 18..21
Binding-site 21..23
Region 26..29
Binding-site 27
Binding-site 29..34
Binding-site 36
Binding-site 38
Region 42..47
Binding-site 47
Binding-site 49
Binding-site 53
Binding-site 55
Region 56..61
Region 66..71
Region 77..82
Binding-site 91..93
Region 98..103
Binding-site 102
Binding-site 104..105
Binding-site 107..108
Region 110..113
Region 119..123
Binding-site 125..126
Binding-site 128..130
Region 130..134
Region 145..153
Binding-site 150
Binding-site 152
Region 152

FT Binding-site 153
FT /note= "IL-1 receptor beta subunit binding region"
FT Binding-site 155
FT /note= "IL-1 receptor beta subunit binding region"
XX
PN WO200157219-A2.
XX
XX 09-AUG-2001.
XX
XX 01-FEB-2001; 2001WO-US03285.
XX
XX 02-FEB-2000; 2000US-0179638.
XX
XX (SCHE) SCHERING CORP.
XX
XX Debets JEMA, Timans JC, Bazan JF, Kastelein RA;
XX WPI: 2001-488886/53.
XX N-PSDB; AAD12295.
XX
XX Novel isolated or recombinant antigenic interleukin-1 delta or epsilon polypeptide useful for treating conditions exhibiting abnormal expression of interleukin such as immunological disorders, tumor and allergy
XX
XX Claim 18; Fig 1; 103pp; English.
XX
XX The invention relates to recombinant antigenic interleukin-1 like molecules and their corresponding nucleic acid sequences, designated as interleukin-1delta (IL-1delta) and interleukin-1epsilon (IL-1epsilon). IL-1delta and IL-1epsilon are useful for treating conditions exhibiting abnormal expression of the interleukin such as immunological disorders, tumors, inflammatory diseases, fever, hypoglycaemia, psoriasis, allergy, autoimmune diseases and infectious diseases (e.g., pulmonary tuberculosis, leprosy, fulminant hepatitis, and viral infections such as HIV). The invention also relates to methods of using the composition containing IL-1delta or IL-1epsilon for both diagnostic and therapeutic utilities. IL-1delta is used as an immunogen for the production of antisera or antibodies specific, e.g., capable of distinguishing between IL-1 family members and an IL-1delta, for the interleukin or its fragment. The purified interleukin is used as a reagent to detect any antibodies generated in response to the presence of elevated levels of expression, or immunological disorders which lead to antibody production to the endogenous cytokine. The invention also contemplates the use of competitive drug screening assays. The present sequence is human interleukin-1delta (IL-1delta) protein.
XX
XX Sequence 155 AA;

Query Match 89.6%; Score 734; DB 22; Length 155;
Best Local Similarity 91.0%; Pred. No. 2.le-77;
Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;

Qy 2 MVLGALCFRMKDSALKVLYLHNNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILG 61
Db 1 MVLGALCFRMKDSALKVLYLHNNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILG 60
Qy 62 VQGSQCLSCGTEKGPILKLEPVMIMELYLGAKESKSFYRRDMLTSSSFESAAYPGWF 121
Db 61 VQGSQCLSCGTEKGPILKLEPVMIMELYLGAKESKSFYRRDMLTSSSFESAAYPGWF 120
Qy 122 LCTSEAPQPVRLTQIPEDPAWDADITDFYQQCD 156
Db 121 LCTVPEADQPVRLTQIPEDPAWDADITDFYQQCD 155

RESULT 15
AAB87601
ID AAB87601 standard; Protein; 155 AA.
XX
AC AAB87601;
XX

Job time: 210 sec

DT 15-MAY-2001 (first entry)

XX Human PRO4342.

XX Human; PRO protein; mapping.

XX Homo sapiens.

XX WO200116318-A2.

XX PD 08-MAR-2001.

XX PF 24-AUG-2000; 2000WO-US23328.

XX PR 01-SEP-1999; 99WO-US20111.

XX PR 15-SEP-1999; 99WO-US21090.

XX PR 07-DEC-1999; 99US-0169495.

XX PR 09-DEC-1999; 99US-0170262.

XX PR 11-JAN-2000; 2000US-0175481.

XX PR 18-FEB-2000; 2000WO-US04341.

XX PR 18-FEB-2000; 2000WO-US04342.

XX PR 22-FEB-2000; 2000WO-US04114.

XX PR 01-MAR-2000; 2000WO-US05601.

XX PR 03-MAR-2000; 2000US-0187202.

XX PR 25-APR-2000; 2000US-0199397.

XX PR 22-MAY-2000; 2000WO-US14042.

XX PR 05-JUN-2000; 2000US-0209832.

XX PA (GETH) GENENTECH INC.

XX PI Eaton DL, Filvaroff E, Gerritsen ME, Goddard A, Godowski PJ;

XX PI Grimaldi CJ, Gurney AL, Watanabe CK, Wood WI;

XX DR WPI; 2001-183260/18.

XX DR N-PSDB; AAF92133.

XX PT Eighty four nucleic acids encoding PRO polypeptides, useful in

XX PT molecular biology, including use as hybridization probes, and in

XX PT chromosome and gene mapping. -

XX PS Claim 12; Fig 152; 278pp; English.

XX CC The present sequence is a human PRO polypeptide (secreted and

XX CC transmembrane). The PRO protein, and PRO agonists, PRO antagonists or

XX CC anti-PRO antibodies are useful for preparation of a medicament useful in

XX CC the treatment of a condition which is responsive to the PRO protein,

XX CC agonists, antagonists or anti-PRO antibodies. The PRO protein may also be

XX CC employed as molecular weight markers for protein electrophoresis. The PRO

XX CC coding sequence has applications in molecular biology, including use as

XX CC hybridisation probes, and in chromosome and gene mapping.

XX SQ Sequence 155 AA;

Query Match 89.6%; Score 734; DB 22; Length 155;
Best Local Similarity 91.0%; Pred. No. 2.1e-77;
Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;
QY 2 MYLGGALCFRMDKALKVLYLHNNQLLAGLHAEKIKGEISVVPNRALDASLSPVILG 61
Db 1 mvlsgalcfrmkdsalkvlylhnnqlagglhagkvikgeisvvpnrwidaslspvilg 60
QY 62 VQGSQCISCGTEKGPILKLEPVMIMELYLGAKESKSFYRRDMGLTSSFESAAYPGW 121
Db 61 vqgsqciscvgqdeptltlepvnimelylgakesksftfyrddngitssfesaaypgw 120
QY 122 LCTSPADQPVRLTQIPEDPAWDAPITDFYFOQCD 156
Db 121 lctvpeadqpvrltqlpenggnapitdfyfqqcd 155

Search completed: May 22, 2002, 14:09:03

Db	61	VGGGQCLSCGVGQEPTLTLEPWNIMELYLGAKESKSFYYRRDGLTSSFESAAYPGWF	120
Qy	122	LCTSPEAQPVRLTQIPEDPAWDAPITDFYFOQCD	156
Db	121	LCTVPEAQPVRLTQLPENGWGNAPITDFYFOQCD	155

RESULT 2

US-09-348-942-5
; Sequence 5, Application US/09348942
; Patent No. 6337072

```

; GENERAL INFORMATION:
; APPLICANT: John Ford
; TITLE OF INVENTION: A NOVEL INTERLEUKIN-1 RECEPTOR ANTAGONIST AND USES THEREOF
; FILE REFERENCE: 28110/35801
; CURRENT APPLICATION NUMBER: US/09/348,942
; CURRENT FILING DATE: 1999-07-07
; EARLIER APPLICATION NUMBER: PCT/US99/04291
; EARLIER FILING DATE: 1999-04-05
; EARLIER APPLICATION NUMBER: US 09/287,210
; EARLIER FILING DATE: 1999-04-05
; EARLIER APPLICATION NUMBER: US 09/251,370
; EARLIER FILING DATE: 1999-02-17
; EARLIER APPLICATION NUMBER: US 09/229,591
; EARLIER FILING DATE: 1999-01-13
; EARLIER APPLICATION NUMBER: US 09/127,698
; EARLIER FILING DATE: 1998-07-31
; EARLIER APPLICATION NUMBER: US 09/099,818
; EARLIER FILING DATE: 1998-06-19
; EARLIER APPLICATION NUMBER: US 09/082,364
; EARLIER FILING DATE: 1998-05-20
; EARLIER APPLICATION NUMBER: US 09/079,909
; EARLIER FILING DATE: 1998-05-15
; EARLIER APPLICATION NUMBER: US 09/055,010
; EARLIER FILING DATE: 1998-04-03
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 5
; LENGTH: 155
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-348-942-5

```

Query Match 89.6%; Score 734; DB 4; Length 155;
Best Local Similarity 91.0%; Pred. No. 8.1e-86;
Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;

00Y	2	MVLSGALCFRKMDSALKVLYLHNQLLAGLHAEKVIKGEESVVPNRNLDASLSPVILG	61
db	1	MVLSGALCFRKMDSALKVLYLHNQLLAGLHAGKVIKGEESVVPNRNLDASLSPVILG	60
00Y	62	VQGSQCLSCGTETKGPILKLEPNIMELYLGAKESKSTFFYRDMGLTSSFESAAYPGWF	121
db	61	VQGSQCLSCGVGEPTLTLEPNIMELYLGAKESKSTFFYRDMGLTSSFESAAYPGWF	120
00Y	122	LCTSPDAQPVRLTQIPEDAPNDAPITDFYFOQD	156
db	121	LCTYPEDAQPVRLTQIPENGGNAPITDFYFOQD	155

RESULT 3

US-09-316-081-5
; Sequence 5, Application US/09316081
; Patent No. 6339141

```

: GENERAL INFORMATION:
: APPLICANT: Ballinger, Dennis G.
: APPLICANT: Pace, Ann M.
: TITLE OF INVENTION: Interleukin-1 Hy2 Materials and Methods
: FILE REFERENCE: 28110/35659
: CURRENT APPLICATION NUMBER: US/09/316,081
: CURRENT FILING DATE: 1999-05-20
: NUMBER OF SEQ ID NOS: 11

```

```

; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 155
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-316-081-5

```

Query Match 89.6%; Score 734; DB 4; Length 155;
Best Local Similarity 91.0%; Pred. NO. 8.1e-86;
Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;

Qy	2	MVLGALCFRKMOSALKVLYLHNQLLAGLGHAEKVIKGEISVVPNRALDASLSPVILG	61
Db	1	MVLGALCFRKMOSALKVLYLHNQLLAGLGHAGKVIKGEISVVPNRWLDASLSPVILG	60
Qy	62	VQGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKSFTEYRDMGLTSSFESAAYPGWF	121
Db	61	VQGSQCLSCGVGQEPITLLEPVNIMELYLGAKESKSFTEYRDMGLTSSFESAAYPGWF	120
Qy	122	LCTSPREADQVRLTQIPEDPAWDAPITDIFYQQCD	156
Db	121	LCTVPEADQVRLTQLPENGWNAPIITDIFYQQCD	155

RESULT 4

RESOL 4
US-09-417-455-3
; Sequence 3, Application US/09417455

```

> Patent No. 6294655
> GENERAL INFORMATION:
> APPLICANT: Pace, John
> APPLICANT: Pace, Ann
> TITLE OF INVENTION: A NOVEL INTERLEUKIN-1
> FILE REFERENCE: 28110/36328
> CURRENT APPLICATION NUMBER: US/09/417,455
> CURRENT FILING DATE: 1999-10-13
> PRIORITY APPLICATION NUMBER: US 09/348,942
> PRIORITY FILING DATE: 1999-07-07
> PRIORITY APPLICATION NUMBER: PCT/US99/04291
> PRIORITY FILING DATE: 1999-04-05
> PRIORITY APPLICATION NUMBER: US 09/287,210
> PRIORITY FILING DATE: 1999-04-05
> PRIORITY APPLICATION NUMBER: US 09/251,370
> PRIORITY FILING DATE: 1999-02-17
> PRIORITY APPLICATION NUMBER: US 09/229,591
> PRIORITY FILING DATE: 1999-01-13
> PRIORITY APPLICATION NUMBER: US 09/127,698
> PRIORITY FILING DATE: 1998-07-31
> PRIORITY APPLICATION NUMBER: US 09/099,818
> PRIORITY FILING DATE: 1998-06-19
> PRIORITY APPLICATION NUMBER: US 09/082,364
> PRIORITY FILING DATE: 1998-05-20
> PRIORITY APPLICATION NUMBER: US 09/079,909
> PRIORITY FILING DATE: 1998-05-15
> PRIORITY APPLICATION NUMBER: US 09/055,010
> PRIORITY FILING DATE: 1998-04-03
> NUMBER OF SEQ ID NOS: 30
> SOFTWARE: FastSeq for Windows Version 3.0
> SEQ ID NO 3
> LENGTH: 80

```

```
Query Match          48.0%; Score 393; DB 4; Length 80;
Best Local Similarity 90.0%; Pred. NO. 1e-42;
Matches 72; Conservative 3; Mismatches 5; Indels 0; Gaps 0;
```

QY 77 PILKLEPVNIMELYLGAKESKSTFFYRRDMGLTSSFESAAYPGHFLCTSP EADQPVRLTQ 136
 - - - - -
 Db 1 PTLTLEPVNIMELYLGAKESKSTFFYRRDMGLTSSFESAAYPGHFLCTVP EADQPVRLTQ 60

; PRIOR APPLICATION NUMBER: US 09/251,370

[illegible]

```

RESULT 10
US-09-316-081-2
; Sequence 2, Application US/09316081
; Patent No. 6339141
; GENERAL INFORMATION:
; APPLICANT: Ballinger, Dennis G.
; APPLICANT: Pace, Ann M.
; TITLE OF INVENTION: Interleukin-1 Hy2 Materials and Methods
; FILE REFERENCE: 28110/35659
; CURRENT APPLICATION NUMBER: US/09/316,081
; CURRENT FILING DATE: 1999-05-20
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 152
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-316-081-2

```

```

RESULT 12
US-08-798-414-2
; Sequence 2, Application US/08798414
; Patent No. 6096728
; GENERAL INFORMATION:
; APPLICANT: COLLINS, David S.
; APPLICANT: BEVILACQUA, Michael P.
; TITLE OF INVENTION: COMPOSITION AND METHOD FOR TREATING
; TITLE OF INVENTION: INFLAMMATORY DISEASES
; NUMBER OF SEQUENCES: 2
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: AMGEN INC.
; STREET: 1840 De Havilland Drive
; CITY: Thousand Oaks
; STATE: California
; COUNTRY: US
; ZIP: 91320-1789
; COMPUTER READABLE FORM:

```

ORGANISM: H
US-09-131-247-2

Search completed: May 22, 2002, 14:09:22
Job time: 209 sec

GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: May 22, 2002, 14:08:13 ; Search time 16.28 seconds
(without alignments)
920.758 Million cell updates/sec

Title: US-09-770-528-2
Perfect score: 819
Sequence: 1 MVLGGALCFRKMOSALKVL.....IPEDPAWDAPITDFYFQQCD 156

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283138 seqs, 96089334 residues
tal number of hits satisfying chosen parameters: 283138

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_71:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	734	89.6	155	JC7104	interleukin-1 rece
2	319.5	39.0	178	A44610	interleukin-1 rece
3	307.5	37.5	177	A30368	interleukin-1 rece
4	307.5	37.5	180	A39386	interleukin-1 rece
5	297.5	36.3	178	C40956	interleukin-1 rece
6	289.5	35.3	177	A54377	interleukin-1 rece
7	137.5	16.8	266	S23010	interleukin-1 beta
8	134.5	16.4	266	IC801B	interleukin-1 beta
9	129	15.8	267	JN0724	interleukin-1 beta
10	128.5	15.7	214	JC5646	interleukin-1 beta
11	128	15.6	269	I55969	interleukin-1 beta
12	127	15.5	267	S38373	interleukin-1 beta
13	122	14.9	269	IC8U1B	interleukin-1 beta
14	119	14.5	268	A30584	interleukin-1 beta
15	84	10.3	259	F95843	conserved hypother
16	84	10.3	1427	I51669	tumor suppressor -
17	84	10.3	1447	A54100	tumor suppressor p
18	80	9.8	364	T05401	hypothetical prote
19	80	9.8	437	I40176	ATP sulfurylase -
20	78	9.5	344	A41357	Fc gamma (IgG) rec
21	78	9.5	374	A139878	Fc gamma (IgG) rec
22	76.5	9.3	551	H81552	methionyl-tRNA syn
23	76.5	9.3	551	C86506	methionyl-tRNA syn
24	75.5	9.2	264	A75354	hypothetical prote
25	75.5	9.2	1034	S35758	mgli protein - mou
26	75.5	9.2	1116	T42213	m-tomoxin, isoform
27	74	9.0	982	T19526	hypothetical prote
28	73.5	9.0	551	H72117	methionine-tRNA l
29	73	8.9	310	T33497	hypothetical prote

30	73	8.9	632	2	T45471	dnaK-type molecule
31	72.5	8.9	815	2	T36671	probable helicase
32	72.5	8.9	1272	2	S26180	neurofascin - chic
33	72	8.8	911	2	T01353	probable serine/th
34	71.5	8.7	204	2	G97071	folate-dependent p
35	71.5	8.7	282	2	AF0902	dihydropteroate sy
36	71.5	8.7	498	2	A87374	hypothetical prote
37	71.5	8.7	621	2	D96554	hypothetical prote
38	71	8.7	268	1	IC801A	interleukin-1 alph
39	71	8.7	268	1	A61246	interleukin-1 alph
40	71	8.7	333	2	AH2179	DnaJ protein [impo
41	71	8.7	640	2	S37394	dnaK-type molecule
42	70.5	8.6	550	2	G70597	probable proteinas
43	70.5	8.6	608	2	T05741	dnaK-type molecule
44	70.5	8.6	663	2	T03581	dnaK-type molecule
45	70.5	8.6	663	2	T04080	dnaK-type molecule

ALIGNMENTS

RESULT 1
JC7104
interleukin-1 receptor antagonist - human
C:Species: Homo sapiens (man)
C>Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 21-Jul-2000
C:Accession: JC7104
R:Mulero, J.J.; Pace, A.M.; Nelken, S.T.; Loeb, D.B.; Correa, T.R.; Drmanac, R.; Ford
Biochem. Biophys. Res. Commun. 263, 702-706, 1999
A:Title: IL1H1: A novel interleukin-1 receptor antagonist gene.
A:Reference number: JC7104; MUID:99443727
A:Accession: JC7104
A:Molecule type: mRNA
A:Residues: 1-155 <MUL>
A:Cross-references: GB:AF186094; NID:g6049804; PIDN:AAF02757.1; PID:g6049805
C:Genetics:
A:Gene: il1h1
A:Map position: 2q14
C:Keywords: macrophage

Query Match 89.6%; Score 734; DB 2; Length 155;
Best Local Similarity 91.0%; Pred. No. 1.3e-66;
Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;
QY 2 MVLGGALCFRKMOSALKVLYLHNNQLLAGLHAEKIKGEEISVVPNRALDASLSPVILG 61
|||||
Db 1 MVLGGALCFRKMOSALKVLYLHNNQLLAGLHAEKIKGEEISVVPNRALDASLSPVILG 60
QY 62 VQGSQCLSCGTEKGPILKLEPVNIMELYLGAKESKFTFYRRDMGLTSSPESAAYPGW 121
|||||
Db 61 VQGSQCLSCGCGVGPETLTLEPVNIMELYLGAKESKFTFYRRDMGLTSSPESAAYPGW 120
QY 122 LCTSPDADQVRLTQIPEDPAWDAPITDFYFQQCD 156
|||||
Db 121 LCTVPEADQVRLTQIPEDPAWDAPITDFYFQQCD 155

RESULT 2
A44610
interleukin-1 receptor antagonist precursor - mouse
N:Alternate names: IL-1ra
C:Species: Mus musculus (house mouse)
C>Date: 09-Sep-1994 #sequence_revision 09-Sep-1994 #text_change 16-Jul-1999
C:Accession: A44610; B40956; A49031; I56106; I52970
R:Natsushime, H.; Roussel, M.F.; Matsushima, K.; Hishinuma, A.; Sherr, C.J.
Blood 78, 616-623, 1991
A:Title: Cloning and expression of murine interleukin-1 receptor antagonist in macroph
A:Reference number: A44610; MUID:91316273
A:Accession: A44610
A:Molecule type: mRNA
A:Residues: 1-178 <MAH>
A:Cross-references: GB:M64404; NID:gl98296; PIDN:AAA39277.1; PID:gl98297

Db 149 AMEADQPVSLTNMPDE---GVNVTKFYFQE 175

RESULT 4

A39386

Interleukin-1 receptor antagonist, long intracellular splice form - human

N:Contains: interleukin-1 receptor antagonist, short intracellular splice form

C:Species: Homo sapiens (man)

C:Date: 28-Feb-1992 #sequence_revision 11-Apr-1997 #text_change 26-May-2000

C:Accession: I37893; A39386

R:Muzio, M.; Polentarutti, N.; Sironi, M.; Poli, G.; De Gioia, L.; Introna, M.; Mantovan J. Exp. Med. 182, 623-628, 1995

A:Title: Cloning and characterization of a new isoform of the interleukin 1 receptor and A:Reference number: 137893; MUID:95353865

A:Accession: I37893

A:Status: translated from GB/EMBL/DBJ

A:Molecule type: mRNA

A:Residues: 1-180 <RES>

A:Cross-references: EMBL:X84348; NID:g1008970; PIDN:CAA59087.1; PID:g1008971

R:Skarvill, S.; Martin, G.; Van Lee, L.; Morris, J.; Peace, A.; Bigler, C.F.; Jaffe, G.J.; Soc. Natl. Acad. Sci. U.S.A. 88, 3681-3685, 1991

A:Title: cDNA cloning of an intracellular form of the human interleukin 1 receptor and A:Reference number: A39386; MUID:91219436

A:Accession: A39386

A:Molecule type: mRNA

A:Residues: 1-3,25-180 <HAS>

A:Cross-references: GB:M55646; NID:g186291; PIDN:AAA59138.1; PID:g186292

C:Comment: For an alternative splice form, see PIR:A30368

C:Genetics:

A:Gene: GDB:IL1RN

A:Cross-references: GDB:125897; OMIM:147679

A:Map position: 2q14.2-q14.2

C:Superfamily: interleukin-1

C:Keywords: alternative splicing; cytokine receptor

F:1-180/Product: interleukin-1 receptor antagonist, long intracellular splice form

F:1-3,25-180/Product: interleukin-1 receptor antagonist, short intracellular splice form

Query Match 37.5%; Score 307.5; DB 2; Length 180;

Best Local Similarity 48.0%; Pred. No. 1.5e-23;

Matches 72; Conservative 16; Mismatches 45; Indels 17; Gaps 5;

QY 10 FRMKDSALKVLYLHNNQLLAGLHAEKVKGEISVVPNRALDASLSP--VILGVQGSQ 67

Db 41 FRWDVNQKTFYLRNQLVAGYLOGPNVNLEEKIDVDP-----IEPHALFLGIHGK 93

QY 68 CLSC---GTEKGPILKLEPVNIMELYLGAKESKFTFYRRDMGLTSSPESAAYPGWFLCT 124

94 CLSCVKSGDETR--LQLEAVNITDLSNRKQDKREAFIRSDSGPTTSFESACPGWFLCT 151

QY 125 SPADQPVRLTQIPEDPAWDAPITDFYFQQ 154

Db 152 AMEADQPVSLTNMPDE---GVNVTKFYFQE 178

RESULT 5

C40956

Interleukin-1 receptor antagonist precursor - rat

C:Species: Rattus norvegicus (Norway rat)

C:Date: 20-Mar-1992 #sequence_revision 20-Mar-1992 #text_change 16-Jul-1999

C:Accession: C40956

R:Elisenberg, S.P.; Brewer, M.T.; Verderber, E.; Heimdal, P.; Brandhuber, B.J.; Thompson, Proc. Natl. Acad. Sci. U.S.A. 88, 5232-5236, 1991

A:Title: Interleukin 1 receptor antagonist is a member of the interleukin 1 gene family: A:Reference number: A40956; MUID:91271363

A:Accession: C40956

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-178 <EIS>

A:Cross-references: GB:M63101; NID:g204928; PIDN:AAA41434.1; PID:g204929

C:Superfamily: interleukin-1

C:Keywords: cytokine receptor

Query Match 36.3%; Score 297.5; DB 2; Length 178;

Best Local Similarity 46.3%; Pred. No. 1.5e-22;

Matches 68; Conservative 17; Mismatches 51; Indels 11; Gaps 4;

QY 10 FRMKDSALKVLYLHNNQLLAGLHAEKVKGEISVVPNRALDASLSPVILGVQGSQCL 69

Db 39 FRWDVNQKTFYLRNQLVAGYLOGPNVNLEEKIDVDP-----IDFRNVFLGIHGK 93

QY 70 SGTGEG--PILKLEPVNIMELYLGAKESKFTFYRRDMGLTSSPESAAYPGWFLCT 127

Db 94 SC-VKSGDDTKLQLEAVNITDLSNRKQDKREAFIRSDSGPTTSFESACPGWFLCT 152

QY 128 ADQPVRLTQIPEDPAWDAPITDFYFQQ 154

Db 153 ADHPVSLTNTKPE---CTVTKFYFQE 176

RESULT 6

A54377

Interleukin-1 receptor antagonist secreted form precursor - rabbit

C:Species: Oryctolagus cuniculus (domestic rabbit)

C:Date: 06-Oct-1994 #sequence_revision 18-Nov-1994 #text_change 16-Jul-1999

C:Accession: A54377; I46729

R:Cominelli, F.; Bortolami, M.; Pizarro, T.T.; Monsacchi, L.; Ferretti, M.; Brewer, M J. Biol. Chem. 269, 6962-6971, 1994

A:Title: Rabbit interleukin-1 receptor antagonist. Cloning, expression, functional ch A:Reference number: A54377; MUID:94165101

A:Accession: A54377

A:Molecule type: mRNA

A:Residues: 1-177 <COM>

A:Cross-references: GB:S68977; NID:g545740; PIDN:AAB30093.1; PID:g545741

A:Experimental source: colon tissue

A:Note: sequence extracted from NCBI backbone (NCBIN:144168, NCBI:P:144169)

R:Goto, F.; Goto, K.; Miyata, T.; Ohkawara, S.; Takao, T.; Mori, S.; Furukawa, S.; Ma Immunology 77, 235-244, 1992

A:Title: Interleukin-1 receptor antagonist in inflammatory exudate cells of rabbits. P A:Reference number: I46729; MUID:93052512

A:Accession: I46729

A:Status: translated from GB/EMBL/DBJ

A:Molecule type: mRNA

A:Residues: 1-177 <GOT>

A:Cross-references: GB:D21832; NID:g425787; PIDN:BAA04860.1; PID:g452205

C:Superfamily: interleukin-1

C:Keywords: cytokine receptor; extracellular protein; glycoprotein

F:1-25/Domain: signal sequence #status predicted <SIG>

F:109/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 35.3%; Score 289.5; DB 2; Length 177;

Best Local Similarity 46.3%; Pred. No. 9.7e-22;

Matches 69; Conservative 17; Mismatches 48; Indels 15; Gaps 5;

QY 10 FRMKDSALKVLYLHNNQLLAGLHAEKVKGEISVVPNRALDASLSP--VILGVQGSQ 67

Db 38 FRWDVNQKTFYLRNQLVAGYLOGPNNAKLERIDVDP-----LEPOLFLGIORG 90

QY 68 CLSCGTEKGPILK--LEPVNIMELYLGAKESKFTFYRRDMGLTSSPESAAYPGWFLCTS 125

Db 91 CLSC-VKSGDKMLHLEAVNITDLSNRKQDKREAFIRSDSGPTTSFESACPGWFLCT 149

QY 126 PEADQPVRLTQIPEDPAWDAPITDFYFQQ 154

Db 150 LEADQPVSLTNTDPPD---SIVVTKFYFQE 175

RESULT 7

S23010

Interleukin-1 beta precursor - sheep

N:Alternate names: hematoopoietin-1; IL-1 beta

C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)

C:Date: 08-Jun-1994 #sequence_revision 22-Nov-1996 #text_change 15-Oct-1999

C:Accession: S23010; S43047; S13092; B61246

Db 171 PVTLGKGNLYLSCVMKDNT

A; Molecule

:SOTJAWWAG;7

A;ACCESSION: A25342
A: Molecule type: DNA: mRNA

A:Title: Rabbit IL-1. Cloning, expression, biologic properties, and transcription during
A:Reference number: A30584; MUID:891176242
A:Accession: A30584
A:Molecule type: mRNA
A:Residues: 1-268 <CAN>
A:Cross-references: GB:M26295; NID:g516632; PIDN:AAA31373.1; PID:g516633.
R:Young, P.R.; Sylvester, D.
Protein Eng. 2, 545-551, 1989
A:Title: Cloning of rabbit interleukin-1 beta: differential evolution of IL-1 alpha and
A:Reference number: A94230; MUID:89315718
A:Accession: JU0082
A:Molecule type: mRNA
A:Residues: 1-268 <YOU>
A:Comment: This protein lacks a conventional signal sequence for protein export. Cleavage
ved form of interleukin-1beta, unlike interleukin 1-alpha, is inactive.
C:Comment: Interleukin-1beta precursor is less heavily myristoylated than interleukin-1a
C:Superfamily: Interleukin-1
C:Keywords: cytokine; immunoregulation; inflammation; lymphokine; macrophage; mitogen
F:117-268/Product: Interleukin-1 beta #status predicted <ILB>

Query Match 14.5%; Score 119; DB 1; Length 268;
Best Local Similarity 30.6%; Pred. NO. 0.00025;
Matches 41; Conservative 20; Mismatches 55; Indels 18; Gaps 4;

QY 2 MVLSSGALCFRMKDSALAVLYLHNNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILG 61
DB 133 LVLSGT-----ELKALHNAENLNQVVFMSFVQGEEN-----DKIRPALG 176
QY 62 VOGSGCCLSC-GTEKGPILKLEPVNIMELYLGAKESKSFYRRDMGLTSSFFESAAYPGW 120
DB 177 LRGNLYLSCVMKDDKPTQLQESVD-PNRYPKKMEKRFVFNKIEIKDKLEFESAQFPNW 235
QY 121 FLCTSPADQPVR 134
DB 236 YISTQTEYMPVFL 249

RESULT 15
F95843
Conserved hypothetical protein SMB20011 [Imported] - Sinorhizobium meliloti (strain 1021
C:Species: Sinorhizobium meliloti
C:Date: 24-Aug-2001 #sequence_revision 24-Aug-2001 #text_change 30-Sep-2001
C:Accession: F95843
R:Finan, T.M.; Weidner, S.; Wong, K.; Buhrmester, J.; Chain, P.; Vorholter, F.J.; Hernan
Proc. Natl. Acad. Sci. U.S.A. 98, 9889-9894, 2001
A:Title: The complete sequence of the 1,683-kb pSymb megaplasmid from the N2-fixing endo
Reference number: A95842; MUID:21396508; PMID:11481431
Accession: F95843
Status: preliminary
A:Molecule type: DNA
A:Residues: 1-259 <KUR>
A:Cross-references: GB:AL591985; PIDN:CAC48414.1; PID:g15139886; GSPDB:GN00167
A:Experimental source: strain 1021, megaplasmid pSymb
R:Galibert, F.; Finan, T.M.; Long, S.R.; Puhler, A.; Abola, P.; Ampe, F.; Barloy-Hubler,
pela, D.; Chain, P.; Cowie, A.; Davis, R.W.; Dreano, S.; Federspiel, N.A.; Fisher, R.F.;
L.; Hyman, R.W.; Jones, T.
Science 293, 668-672, 2001
A:Authors: Kahn, D.; Kahn, M.L.; Kalman, S.; Keating, D.H.; Kiss, E.; Komp, C.; Lelaure,
hebaute, P.; Vandenbol, M.; Vorholter, F.J.; Weidner, S.; Wells, D.H.; Wong, K.; Yeh, K.
A:Title: The composite genome of the legume symbiont Sinorhizobium meliloti.
A:Reference number: A96039; MUID:21368234; PMID:11474104
A:Contents: annotation
C:Genetics:
A:Gene: SMB20011
A:Genome: plasmid

Query Match 10.3%; Score 84; DB 2; Length 259;
Best Local Similarity 27.2%; Pred. NO. 0.8;
Matches 41; Conservative 18; Mismatches 46; Indels 46; Gaps 7;

QY 14 DSALKVLYLH-----NNQLLAGLHAEKVIKGEISVVPNRALDASLSPVILGVQGG 65

Db 97 DQKAEVDRLHRRRRPRGSSNVAVLAGGTSAEELIEGTICV-----GATFEPEVALIVGL 150
QY 66 SQCLSCGTEKGPILKLEPVNIMELYLGAKESKSFYRRDMGLT-----SFESAAYPGWF 121
Db 151 AICIDNFS-----EGMSIGELTLDEERKNA---KRRTLGWTLTGLSLFLVSAVAGWF 199
QY 122 LCTSPADQPVRLTQIPEDPAWDAPITDFYF 152
Db 200 LLKG-----LAQ-----PVTGFLF 213

Search completed: May 22, 2002, 14:11:40
Job time: 207 sec

GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein - protein search, using sw model

Run on: May 22, 2002, 14:09:23 ; Search time 11.89 seconds
(without alignments)
508.011 Million cell updates/sec

Title: US-09-770-528-2
Perfect score: 819
Sequence: 1 MMVSLGALCFRKMKSALKVL.....IPEDPAWDAPITDFYFQQCD 156

Scoring table:
BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 105224 seqs, 38719550 residues
tal number of hits satisfying chosen parameters: 105224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	319.5	39.0	178	1 IL1X_MOUSE	P25085 mus musculus
2	307.5	37.5	177	1 IL1X_HUMAN	P18510 homo sapien
3	301.5	36.8	174	1 IL1X_BOVIN	O77482 bos taurus
4	299.5	36.6	177	1 IL1X_PIG	Q29056 sus scrofa
5	287.5	36.3	178	1 IL1X_RAT	P25086 rattus norv
6	289.5	35.3	177	1 IL1X_RABIT	P26890 oryctolagus
7	269.5	32.9	177	1 IL1X_HORSE	O18999 equus cabal
8	137.5	16.8	266	1 IL1B_SHEEP	P21621 ovis aries
9	137.5	16.7	268	1 IL1B_HORSE	Q28386 equus cabal
10	136.5	16.7	266	1 IL1B_CEREL	P51745 cervus elap
11	134.5	16.4	266	1 IL1B_BOVIN	P09428 bos taurus
12	131.5	16.1	266	1 IL1B_CAVPO	Q9wvg1 cavia porce
13	129.5	15.8	267	1 IL1B_PIG	P26889 sus scrofa
14	128.5	15.6	269	1 IL1B_MOUSE	P10749 mus musculus
15	126.5	15.4	269	1 IL1B_TRIVU	O9xs77 trichosurus
16	126.5	15.4	269	1 IL1B_MACMU	P48090 macaca mula
17	125.5	15.3	267	1 IL1B_FELCA	P41687 felis silve
18	125.5	15.3	268	1 IL1B_MACFA	P79182 macaca fasc
19	125.5	15.3	268	1 IL1B_RAT	O63264 rattus norv
20	124.5	15.2	266	1 IL1B_CAPHI	P79162 capra hircu
21	123.5	15.0	269	1 IL1B_MACNE	P51493 macaca neme
22	122.5	14.9	269	1 IL1B_HUMAN	P01584 homo sapien
23	119.5	14.5	268	1 IL1B_RABIT	P14628 oryctolagus
24	115.5	14.0	269	1 IL1B_CERTO	P46648 cercopithec
25	84.0	10.3	1447	1 IL1B_HUMAN	P43146 homo sapien
26	80.0	10.3	1447	1 DCC_MOUSE	P70211 mus musculus
27	80.0	9.8	437	1 SAT_RIFPS	O54506 riffia pach
28	78.0	9.5	374	1 FCGL_HUMAN	P12314 homo sapien
29	77.0	9.4	271	1 IL1A_MACFA	P79340 macaca fasc
30	77.0	9.4	271	1 IL1A_MACMU	P48089 macaca mula
31	76.5	9.3	551	1 SYM_CHLPN	Q9z959 chlamydia p
32	72.5	8.9	268	1 IL1A_CAPHI	P79161 capra hircu
33	72.0	8.8	268	1 IL1A_SHEEP	Q28579 ovis aries

RESULT 1

ID	IL1X_MOUSE	STANDARD;	PRT;	178 AA.
AC	P25085; O70207;			
DT	01-MAY-1992 (Rel. 22, Created)			
DT	01-MAY-1992 (Rel. 22, Last sequence update)			
DT	01-MAR-2002 (Rel. 41, Last annotation update)			
DE	Interleukin-1 receptor antagonist protein precursor (IL-1RA) (IL-1RN)			
DE	(IRAP).			
GN	IL1RN OR IL-1RA.			
OS	Mus musculus (Mouse).			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Mammalia; Euthera; Rodentia; Sciurognathi; Muridae; Murinae; Mus.			
OX	NCBI_TaxID=10090;			
RN	[1]			
RP	SEQUENCE FROM N.A. (ISOFORM 1).			
RX	MEDLINE=91250712; PubMed=1828262;			
RA	Zahedi K., Seldin M.F., Rits M., Ezekowitz R.A., Whitehead A.S.;			
RT	"Mouse IL-1 receptor antagonist protein. Molecular characterization,			
RT	gene mapping, and expression of mRNA in vitro and in vivo.";			
RL	J. Immunol. 146:4228-4233(1991).			
RN	[2]			
RP	SEQUENCE FROM N.A. (ISOFORM 1).			
RX	MEDLINE=91316273; PubMed=1830498;			
RA	Matsushime H., Roussei M.F., Matsushima K., Hishinuma A., Sherr C.J.;			
RT	"Cloning and expression of murine interleukin-1 receptor antagonist			
RT	in macrophages stimulated by colony-stimulating factor 1.";			
RL	Blood 78:616-623(1991).			
RN	[3]			
RP	SEQUENCE FROM N.A. (ISOFORM 1).			
RC	STRAIN-SWISS;			
RX	MEDLINE=94271931; PubMed=8003626;			
RA	Zahedi K.A., Uhlar C.M., Rits M., Prada A.E., Whitehead A.S.;			
RT	"The mouse interleukin 1 receptor antagonist protein: gene structure			
RT	and regulation in vitro.";			
RL	Cytokine 6:1-9(1994).			
RN	[4]			
RP	SEQUENCE FROM N.A. (ISOFORM 2).			
RC	STRAIN-FVBXDBA/1 LACJ;			
RX	MEDLINE=98209757; PubMed=9550387;			
RA	Gabay C., Porter B., Fantuzzi G., Arend W.P.;			
RT	"Mouse IL-1 receptor antagonist isoforms: complementary DNA cloning			
RT	and protein expression of intracellular isoform and tissue			
RT	distribution of secreted and intracellular IL-1 receptor antagonist in			
RT	vivo.";			
RL	J. Immunol. 159:5905-5913(1997).			
RN	[5]			
RP	SEQUENCE OF 7-178 FROM N.A.			
RX	MEDLINE=91271363; PubMed=1828896;			
RA	Eisenberg S.P., Brewer M.T., Verderber E., Helmdal P.,			
RA	Brandhuber B.J., Thompson R.C.;			
RT	"Interleukin 1 receptor antagonist is a member of the interleukin 1			
RT	gene family: evolution of a cytokine control mechanism.";			
RL	Proc. Natl. Acad. Sci. U.S.A. 88:5232-5236(1991).			
RN	[6]			
RP	SEQUENCE OF 23-178 FROM N.A.			

P08831 bos taurus
P54223 rhizobium m
P36415 dictyostell
O24581 zea mays (m
P33981 homo sapien
P03103 bovine papl
O83195 treponema p
P18430 sus scrofa
Q64725 rattus norv
P28950 equine herp
P01582 mus musculu

1 IL1A_BOVIN
1 BETA_RHIME
1 HSTC_DICDI
1 BIF3_MAIZE
1 TTK_HUMAN
1 VLI_BPV1
1 SYP_TREPA
1 IL1A_PIG
1 KSYK_RAT
1 BIF2_MAIZE
1 UL17_HSVB
1 IL1A_MOUSE

8.7 268
71 549
8.7 640
8.7 663
8.6 841
8.5 495
8.5 617
8.5 270
8.5 629
8.5 663
8.5 706
8.5 706
8.4 270

ALIGNMENTS

RA Eisenberg S.P., Brewer M.T., Verderber E., Heimdal P.,
RT Brandhuber B.J., Thompson R.C.;
RL "Interleukin 1 receptor antagonist is a member of the interleukin 1
RT gene family: evolution of a cytokine control mechanism.";
RL Proc. Natl. Acad. Sci. U.S.A. 88:5232-5236(1991).
CC -1- FUNCTION: IL-1RA INHIBITS THE ACTIVITY OF IL-1 BY BINDING TO ITS
CC RECEPTOR. IL-1RA HAS NO IL-1 LIKE ACTIVITY.
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>
CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; M63101; AAA41434.1; -
DR PIR; C40956; C40956.
DR HSSP; P18510; ILIR.
DR InterPro; IPR000975; Interleukin_1.
DR Pfam; PF00340; IL1; 1.
DR PRINTS; PR00264; INTERLEUKIN1.
DR ProDom; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
DR PROSITE; PS00253; INTERLEUKIN_1; 1.
KW Glycoprotein; Signal.
FT SIGNAL 1 26
FT CHAIN 27 178
FT INTERLEUKIN-1 RECEPTOR ANTAGONIST
FT PROTEIN.
FT BY SIMILARITY.
FT DISULFID 92 142
FT CARBOHYD 110 110
FT N-LINKED (GLCNAC...) (POTENTIAL).
SQ SEQUENCE 178 AA; 20282 MW; F3A5754FB6C51B03 CRC64;

Query Match 36.3%; Score 297.5; DB 1; Length 178;
Best Local Similarity 46.3%; Pred. No. 2.9e-23;
Matches 68; Conservative 17; Mismatches 51; Indels 11; Gaps 4;

QY 10 FRMKDSALKVLYLHNNQLLAGLHAEKVKGEEISVVPNRLDASLSPVILGVGGSGQL 69
DB 39 FRWDVNTQKTFYLRNQLAGYLOGPNTKLEKIDWVP-----IDFRNVLGIHGGKLC 93
QY 70 SCGTEKG--PILKEPVNIMLYLGAKESKFTFYRDMGLTSSFESAAYPGWFLCTSP 127
DB 94 SC-VKSGDDTKLQEEVNTDLNKKEDKRTFIRSGTTSFESLACPGWFLCTTLE 152

QY 128 ADQPVRLTQIPEDPAWDAPITDFYFQ 154
DB 153 ADHPVSLTNTPEP---CTVTKFYFQE 176

RESULT 6
ID IL1X_RABIT STANDARD; PRT; 177 AA.
AC P26890;
DT 01-AUG-1992 (Rel. 23, Created)
DT 01-AUG-1992 (Rel. 23, Last sequence update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)
DE Interleukin-1 receptor antagonist protein precursor (IL-1RA) (IL-1RN)
DE (IRAP).
GN IL1RN OR IL1RA.
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=94165101; PubMed=7509813;
RA Cominelli F., Bortolami M., Pizarro T.T., Monsacchi L., Ferretti M.,
RA Brewer M.T., Eisenberg S.P., Ng R.K.;
RT "Rabbit interleukin-1 receptor antagonist. Cloning, expression,
RT functional characterization, and regulation during intestinal

inflammation.";
J. Biol. Chem. 269:6962-6971(1994).
[2]
RP SEQUENCE FROM N.A.
RA Hamada H., Mulligan R.C.;
RL Submitted (XXL-1992) to the EMBL/GenBank/DBJ databases.
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE=93052512; PubMed=1427977;
RA Coto F., Goto K., Miyata T., Ohkawa S., Takao T., Mori S.,
RA Furukawa S., Maeda T., Iwanaga S., Shimonishi Y., Yoshinaga M.;
RT "Interleukin-1 receptor antagonist in inflammatory exudate cells of
RT rabbits. Production, purification and determination of primary
RT structure.";
RL Immunology 77:235-244(1992).
CC -1- FUNCTION: IL-1RA INHIBITS THE ACTIVITY OF IL-1 BY BINDING TO ITS
CC RECEPTOR. IL-1RA HAS NO IL-1 LIKE ACTIVITY.
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>
CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; S68977; AAB30093.1; -
DR EMBL; M57526; AAA31374.1; -
DR EMBL; D21832; BAA04860.1; -
DR PIR; A54377; A54377.
DR HSSP; P18510; ILIR.
DR InterPro; IPR000975; Interleukin_1.
DR Pfam; PF00340; IL1; 1.
DR PRINTS; PR00264; INTERLEUKIN1.
DR ProDom; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
DR PROSITE; PS00253; INTERLEUKIN_1; 1.
KW Glycoprotein; Signal.
FT SIGNAL 1 25
FT CHAIN 26 177
FT INTERLEUKIN-1 RECEPTOR ANTAGONIST
FT PROTEIN.
FT BY SIMILARITY.
FT DISULFID 91 141
FT CARBOHYD 109 109
FT N-LINKED (GLCNAC...) (POTENTIAL).
SQ SEQUENCE 177 AA; 20214 MW; F5BC087F097FFFAF CRC64;

Query Match 35.3%; Score 289.5; DB 1; Length 177;
Best Local Similarity 46.3%; Pred. No. 1.9e-22;
Matches 69; Conservative 17; Mismatches 48; Indels 15; Gaps 5;

QY 10 FRMKDSALKVLYLHNNQLLAGLHAEKVKGEEISVVPNRLDASLSPVILGVGGSGQ 67
DB 38 FRWDVNTQKTFYLRNQLAGYLOGPNTKLEKIDWVP-----LEPOLLFLGIORGL 90
QY 68 CLSCGTEKGPILK--LEPVNIMLYLGAKESKFTFYRDMGLTSSFESAAYPGWFLCTS 125
DB 91 CLSC-VKSGDKMKLHLEAVNITDLGKNKEDKRTFIRSGTTSFESASCPGWFLCTA 149
QY 126 PEADQPVRLTQIPEDPAWDAPITDFYFQ 154
DB 150 LEADQPVSLTNTPEP---SIVTKFYFQE 175

RESULT 7
ID IL1X_HORSE STANDARD; PRT; 177 AA.
AC O18999; O77745;
DT 15-DEC-1998 (Rel. 37, Created)
DT 15-DEC-1998 (Rel. 37, Last sequence update)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DE Interleukin-1 receptor antagonist protein precursor (IL-1RA) (IL-1RN)
DE (IRAP).

```
GN IL1RN OR IL1RA.
OS Equus caballus (Horse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OX NCBI_TaxID=9796;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=97366446; PubMed=9223227;
RA Kato H., Ohashi T., Matsushiro H., Watari T., Goitsuka R.,
RA Tsujimoto H., Hasegawa A.;
RT "Molecular cloning and functional expression of equine interleukin-1
RT receptor antagonist.";
RL vet. Immunol. Immunopathol. 56:221-231(1997).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=98285942; PubMed=9622739;
RA Howard R.D., McIlwraith C.W., Trotter G.W., Nyborg J.K.;
RT "Cloning of equine interleukin-1 receptor antagonist and
RT determination of its full-length cDNA sequence.";
RL Am. J. Vet. Res. 59:712-716(1998).
CC -1- FUNCTION: IL-1RA INHIBITS THE ACTIVITY OF IL-1 BY BINDING TO ITS
CC RECEPTOR. IL-1RA HAS NO IL-1 LIKE ACTIVITY.
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; D83714; BAA22529.1; -
DR EMBL; U92482; AAC39257.1; -
DR HSSP; P18510; 11LR
DR InterPro; IPR000975; Interleukin_1.
DR Pfam; PF00340; IL1; 1.
DR PRINTS; PR00264; INTERLEUKIN1.
DR PRODOM; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
DR PROSITE; PS00253; INTERLEUKIN_1; 1.
KW Glycoprotein; Signal.
FT SIGNAL 1 25 BY SIMILARITY.
FT CHAIN 26 177 INTERLEUKIN-1 RECEPTOR ANTAGONIST
FT PROTEIN.
FT DISULFID 91 141 BY SIMILARITY.
FT CARBOHYD 109 109 N-LINKED (GLCNAC... ) (POTENTIAL).
FT CONFLICT 19 19 F -> L (IN REF. 2).
FT SEQUENCE 177 AA; 20459 MW; 1ABC377F1F1CF80B CRC64;
SQ
Query Match 32.9%; Score 269.5; DB 1; Length 177;
Best Local Similarity 43.2%; Pred. No. 2.1e-20;
Matches 64; Conservative 20; Mismatches 51; Indels 13; Gaps 4;
QY 10 FRMKDSALKVLYLHNNQLLAGLHAERKVGEEISVVPNRRALDASLP--VILGVQGGSG 67
DB 38 FRIVDYNQKTFYMRNQLVAGLQESNTKLOEKIDVVP-----IEPDALFLGLHGKRL 90
QY 68 CLSCGTEKGPI-LKLEPNWIMELYLGAKESFTFYRRDMLGTSFSESFAAPGWFLCTSP 126
DB 91 CLACVKSGDETRFQLEAVNTIDLSKNKEENKRTFIRNSGPTTSFSAACPGHFLCTAQ 150
QY 127 EADQVRLTQIPEDPAWDAPITDFYFQQ 154
DB 151 EADRVSLTNKPKE---SFMTVKEYLQVE 175
RESULT 8
IL1B_SHEEP
ID IL1B_SHEEP STANDARD; PRT; 266 AA.
AC P21621;
DT 01-MAY-1991 (Rel. 18, Created)
```

```
DT 01-MAR-1992 (Rel. 21, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Interleukin-1 beta precursor (IL-1 beta).
GN IL1B.
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=92119335; PubMed=1840515;
RA Seow H.F., Rothel J.S., David M.J., Wood P.R.;
RT "Nucleotide sequence of ovine macrophage interleukin-1 beta cDNA.";
RL DNA Seq. 1:423-426(1991).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=91088326; PubMed=2263490;
RA Fiskerstrand C., Sargan D.;
RT "Nucleotide sequence of ovine interleukin-1 beta.";
RL Nucleic Acids Res. 18:7165-7165(1990).
CC -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
CC IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
CC IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS.
CC -1- SUBUNIT: MONOMER.
CC -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC -1- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC SECRETORY PROTEINS.
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; X54796; CAA38566.1; -
DR EMBL; X56972; CAA40293.1; -
DR PIR; S13092; S13092.
DR PIR; S13810; S13810.
DR PIR; S23010; S23010.
DR HSSP; P01584; 511B.
DR InterPro; IPR002348; IL1_HBGF.
DR InterPro; IPR000975; Interleukin_1.
DR InterPro; IPR003502; Interleukin_1_prop.
DR Pfam; PF00340; IL1; 1.
DR Pfam; PF02394; IL1_prosep; 1.
DR PRINTS; PR00262; IL1HBGF.
DR PRODOM; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
DR PROSITE; PS00253; INTERLEUKIN_1; 1.
KW Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen.
FT PROPEP 1 113
FT CHAIN 114 266 INTERLEUKIN-1 BETA.
FT CONFLICT 14 14 Y -> C (IN REF. 2).
FT CONFLICT 55 55 Q -> K (IN REF. 2).
FT CONFLICT 64 64 V -> A (IN REF. 2).
FT CONFLICT 145 145 P -> L (IN REF. 2).
FT SEQUENCE 266 AA; 30717 MW; BDED07B58224AB78 CRC64;
SQ
Query Match 16.8%; Score 137.5; DB 1; Length 266;
Best Local Similarity 30.9%; Pred. No. 9.5e-07;
Matches 42; Conservative 24; Mismatches 53; Indels 17; Gaps 5;
```

QY 17 LKVLVHNNOLLGAGLHAEKVIKGEISVVPNRDALDASLSPVILGVGGSCQLSCGTGK 76
 DB 139 LKALHPSQEMSRVYVFCMSVQGEERD-----NKIPVALGDKNLYLSC-VKKG 188
 QY 77 --PILKLEPVMIMELYLGAKESKFTFYRRDMGLTSSFESAAYPGWFLCHSPADQVRL 134
 DB 189 DTPILQLEVD-PKYVPRNMEKRFVYKTKTKVTFESVLYPNWVISTQIEKPVFL 247
 QY 135 TOIPEDPAWDAPITDF 150
 DB 248 GRF-----RGQDITDF 259

RESULT 9
 IL1B_HORSE
 ID IL1B_HORSE STANDARD: PRT; 268 AA.
 AC Q28386; 077744; 018995;
 DT 15-DEC-1998 (Rel. 37, Created)
 DT 15-DEC-1998 (Rel. 37, Last sequence update)
 DT 01-MAR-2002 (Rel. 41, Last annotation update)
 DE Interleukin-1 beta precursor (IL-1 beta).
 GN IL1B.
 OS Equus caballus (Horse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
 OC NCBI_TaxID=9796;
 RN [1]
 RP SEQUENCE FROM N.A. (LONG ISOFORM).
 RX MEDLINE=96131982; PubMed=8578682;
 RA Kato H., Ohashi T., Nakamura N., Nishimura Y., Watari T., Goitsuka R.,
 RA Tsujimoto H., Hasegawa A.;
 RT "Molecular cloning of equine interleukin-1 alpha and -beta cDNAs.";
 RL Vet. Immunol. Immunopathol. 48:221-231(1995).
 RN [2]
 RP SEQUENCE FROM N.A. (LONG ISOFORM).
 RX MEDLINE=96285941; PubMed=9622738;
 RA Howard R.D., McIlwraith C.W., Trotter G.W., Nyborg J.K.;
 RA "Cloning of equine interleukin-1 alpha and equine interleukin-1 beta
 and determination of their full-length cDNA sequences.";
 RL Am. J. Vet. Res. 59:704-711(1998).
 RN [3]
 RP SEQUENCE FROM N.A. (SHORT ISOFORM).
 RX MEDLINE=97080493; PubMed=8921838;
 RA Kato H., Yoon H.Y., Ohashi T., Watari T., Goitsuka R., Tsujimoto H.,
 RA Hasegawa A.;
 RT "Identification of an alternatively spliced transcript of equine
 interleukin-1 beta.";
 RL Gene 177:11-16(1996).
 CC -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
 THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE. B-CELL
 MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
 IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
 IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
 THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS
 (BY SIMILARITY).
 CC -1- SUBUNIT: MONOMER (BY SIMILARITY).
 CC -1- ALTERNATIVE PRODUCTS: 2 isoforms; a long form (shown here) and a
 short form; are produced by alternative splicing.
 CC -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
 AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
 CC -1- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
 PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
 OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
 SECRETORY PROTEINS.
 CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.

 This SWISS-PROT entry is copyright. It is produced through a collaboration
 between the Swiss Institute of Bioinformatics and the EMBL outstation -
 the European Bioinformatics Institute. There are no restrictions on its
 use by non-profit institutions as long as its content is in no way
 modified and this statement is not removed. Usage by and for commercial
 entities requires a license agreement (See <http://www.isb-sib.ch/announce/>
 or send an email to license@isb-sib.ch).

CC EMBL; D42147; BAA07718.1; -
 DR EMBL; U92481; AAC39256.1; -
 DR EMBL; D42165; BAA22528.1; -
 DR HSSP; P10749; 811B.
 DR InterPro; IPR002348; IL1_HBGF.
 DR InterPro; IPR000975; Interleukin_1.
 DR InterPro; IPR003502; Interleukin_1_prop.
 DR Pfam; PF03340; IL1; 1.
 DR Pfam; PF02394; IL1_propesp; 1.
 DR PRINTS; PR00262; IL1HBGF.
 DR ProDom; PD002536; Interleukin_1; 1.
 DR SMART; SM00125; IL1; 1.
 DR PROSITE; PS00253; INTERLEUKIN_1; 1.
 KW Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen;
 KW Alternative splicing.
 FT PROPEP 1 115 BY SIMILARITY.
 FT CHAIN 116 268 INTERLEUKIN-1 BETA.
 FT VARSPPLIC 101 154 MISSING (IN SHORT ISOFORM).
 FT CONFLICT 45 45 D -> N (IN REF. 2).
 FT CONFLICT 55 55 H -> Q (IN REF. 2).
 FT CONFLICT 64 65 AM -> VV (IN REF. 2).
 FT CONFLICT 71 71 V -> M (IN REF. 2).
 FT CONFLICT 110 111 EG -> DD (IN REF. 2).
 FT CONFLICT 118 118 M -> V (IN REF. 2).
 FT CONFLICT 245 245 S -> K (IN REF. 2).
 SQ SEQUENCE 268 AA; 30268 MW; 336F27792A1542EA CRC64;

Query Match 16.7%; Score 137; DB 1; Length 268;
 Best Local Similarity 30.3%; Pred. No. 1.le-06;
 Matches 47; Conservative 22; Mismatches 60; Indels 26; Gaps 6;

QY 2 MVLSGALCFMRKDSALKVLYLHNNOLLGAGLHAEKVIKGEISVVPNRDALDASLSPVILG 61
 DB 133 LVLGSA-----CELAQVHLNGENTNOQVFCMSFVQGE-----ETDKIPVALG 176
 QY 62 VGGGSCQLSCGTGK-PILKLEPVMIMELYLGAKESKFTFYRRDMGLTSSFESAAYPGW 120
 DB 177 LKAEKNLYLSCGMKDGKPTLQLETVD-PNTYPRKMEKRFVKNKMEIKGNVFESAMYPNW 235
 QY 121 FLCTSPEADQPVRL--TOIPEDPAWDAPITDFYFQ 153
 DB 236 YISTQAQKSVFLGNTRGRD-----ITDFIME 264

RESULT 10
 IL1B_CEREL
 ID IL1B_CEREL STANDARD: PRT; 266 AA.
 AC P51745;
 DT 01-OCT-1996 (Rel. 34, Created)
 DT 01-OCT-1996 (Rel. 34, Last sequence update)
 DT 01-MAR-2002 (Rel. 41, Last annotation update)
 DE Interleukin-1 beta precursor (IL-1 beta).
 GN IL1B.
 OS Cervus elaphus (Red deer).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Cervoidae;
 OC Cervidae; Cervinae; Cervus.
 RN [1]
 RP NCBI_TaxID=9860;
 RP SEQUENCE FROM N.A.
 RA Lockhart E.A.;
 RL Submitted (MAR-1995) to the EMBL/GenBank/DBJ databases.
 CC -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
 THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE. B-CELL
 MATURATION AND PROLIFERATION, AND FIBROBLAST GROWTH FACTOR
 ACTIVITY. IL-1S ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
 IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
 THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS
 (BY SIMILARITY).
 CC -1- SUBUNIT: MONOMER (BY similarity).
 CC -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE

```

CC      AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC      -|- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC      PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC      OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC      SECRETORY PROTEINS (BY SIMILARITY).
CC      -|- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC      -----
CC      THIS SWISS-PROT entry is copyright. It is produced through a collaboration
CC      between the Swiss Institute of Bioinformatics and the EMBL outstation
CC      at the European Bioinformatics Institute. There are no restrictions on its
CC      use by non-profit institutions as long as its content is in no way
CC      modified and this statement is not removed. Usage by and for commercial
CC      entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC      or send an email to license@isb-sib.ch).
CC      -----
CC      EMBL: U20500; AAG62234.1; -.
CC      HSSP: P01584; 1H1B.
CC      InterPro: IPR002348; IL1_HBGF.
CC      InterPro: IPR000975; Interleukin_1.
CC      InterPro: IPR003502; Interleukin_1_prop.
CC      Pfam: PF00340; IL1; 1.
CC      Pfam: PF02394; IL1_propep; 1.
CC      PRINTS: PR00262; IL1HBGF.
CC      ProDom: PD002536; Interleukin_1; 1.
CC      SMART: SM00125; IL1; 1.
CC      PROSITE: PS00253; INTERLEUKIN_1; 1.
CC      Cytokine, Macrophage; Mitogen; Inflammatory response; Pyrogen.
CC      PROPEP 113 BY SIMILARITY.
CC      FT CHAIN 114 266 INTERLEUKIN-1 BETA.
CC      SEQUENCE 266 AA; 30629 MW; 4F40B4E6FD9F060 CRC64;
CC
CC      Query Match 16.7%; Score 136.5; DB 1; Length 266;
CC      Best Local Similarity 30.9%; Pred. No. 1.2e-06;
CC      Matches 42; Conservative 23; Mismatches 54; Indels 17; Gaps 5;
CC
QY      17 LKVLYLHNOLLAGGLHAEKVIRGEEISVVPNRRALDASLPVLGVGGSGQCLSCGTGK 76
QY      || || : : : : || : : : : || || : : : : || || : : : : ||
Db      139 LKALHLLSQEMSREVFVFCMFSVQAEERD-----NKIPVALGIRDKNQYLSC-VKKG 188
QY      77 --PTLKEPVNIMELYLGAESKESFTYRDRDMGLTSSFESAAYPGWFLCTSP EADQPVRL 134
QY      || : || : || : || : || : || : || : || : || : || : || : ||
Db      189 DTPTLQEEVD--PKVYEPKRNKEKRFVYKYKEIKDTVEFESVLYPNWVISTSHPEKPVFL 247
QY      135 TQIPEDPAWDAPITDF 150
QY      ||||
Db      248 GHF----RGGQDITDF 259

```

Query Match	16.4%	Score 134.5	DB 1	Length 266
Best Local Similarity	30.9%	Pred. No. 1.9e-06		
Matches 42	Conservative 23	Mismatches 54	Indels 17	Gaps 5
Qy 17	LKVLYLHNNOLLAGGLHAEKVIGKEEISVVPNRALDASLSPVLGVGGSGOCLSCGTEKG	76		
Db 139	LKAUHLLSQENNRVFCMSFVQGEERD-----NKIPVALGCKDKNLYLSC-VKKG	188		
Qy 77	--PTLKLEPVNIMELYLGAKESKFTFYRRDMGTTTSFSAAYGPGWLCTSPEDAQPVRL	134		
Db 189	DTPTLQLEEVDP-KPVYPKRNMKEKRFVFKTEIKNTVEFSLYVPNWVISTSQIEERPVPFL	247		
Qy 135	TQIPEDPAWDAPITDF	150		
Db 248	GHFRA----GQDITDF	259		
RESULT 12				
IL1B_CAVPO				
ID_IL1B_CAVPO	STANDARD;	PRT;	266 AA.	
AC	Q9WVG1;			
DT	01-MAR-2002 (Rel. 41, Created)			
DT	01-MAR-2002 (Rel. 41, Last sequence update)			
DT	01-MAR-2002 (Rel. 41, Last annotation update)			


```

DE Interleukin-1 beta precursor (IL-1 beta).
GN IL1B.
CA Cavia porcellus (Guinea pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
OX NCBI_TaxID=10141;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=2; TISSUE=Spleen;
RC MEDLINE=99323828; PubMed=10394101;
RA Yoshimura T., Takeya M., Ogata H., Yamashiro S., Modi W.S.,
RA Gallitzter R.;
RT "Molecular cloning of the guinea pig GRO gene and its rapid expression
RT in the tissues of lipopolysaccharide-injected guinea pigs.";
RL Int. Arch. Allergy Immunol. 119:101-111(1999).
CC -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC MATURATION AND PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC ACTIVITY. IL-1S ARE INVOLVED IN THE INFLAMMATORY GROWTH FACTOR
CC IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS
CC (BY SIMILARITY).
CC -1- SUBUNIT: MONOMER (By similarity).
CC -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC -1- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC SECRETORY PROTEINS (By similarity).
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
-----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
-----
EMBL: AF119622; AAD38502.1; -.
DR HSSP: P10749; 8ILB.
DR InterPro: IPR002348; IL1_HBGF.
DR InterPro: IPR000975; Interleukin_1.
DR InterPro: IPR003502; Interleukin_1_prop.
DR Pfam: PF00340; IL1; 1.
DR Pfam: PF02394; IL1_propep; 1.
DR PRINTS: PR00262; IL1HBGF.
DR PRODOM: PD002536; Interleukin_1; 1.
DR SMART: SM00125; IL1; 1.
DR PROSITE; PS00233; INTERLEUKIN_1; 1.
KW Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen.
FT PROPEP 1 114 BY SIMILARITY.
FT CHAIN 115 266 INTERLEUKIN-1 BETA.
FT SEQUENCE 266 AA; 30530 MW; 46558BA16B4C529A CRC64;
-----
Query Match 16.1%; Score 131.5; DB 1; Length 266;
Best Local Similarity 31.9%; Pred. No. 3.9e-06;
Matches 38; Conservative 21; Mismatches 49; Indels 11; Gaps 3;

QY 17 LKVLVLYHNNOLLAGGLHAEKVKGEEISVVPNRALDASLSPVLTVQGGSCQLSCGTEKG 76
Db 140 LKALHLNGDNLNRQVVFMSFVGGR-----SDNKNPVALGLKGNLYLUSCVNKG 190
QY 77 -PILKLEPNVIMELYLGAKESKSFTFYRRDMGLTSSFESAAYPGWFLCTSP EADQPVRL 134
Db 191 KPVQLQESVDGKG-YPKKKMKERFVENKITSKSTVFESQAQFNWISTSQAEHKPVFL 248

RESULT 13
IL1B_PIG
ID IL1B_PIG
AC P26889;
STANDARD; PRT; 267 AA.

```

01-AUG-1992 (Rel. 23, Created)
01-AUG-1992 (Rel. 23, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Interleukin-1 beta precursor (IL-1 beta).
IL1B.
Sus scrofa (pig).
Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
NCBI_TaxID=9823;
[1]
SEQUENCE FROM N.A.
MEDLINE=93314975; PubMed=8325511;
Huetner M.J., Lin G., Smith D.M., Murtaugh M.P., Molitor T.W.;
Cloning, sequencing and regulation of an mRNA encoding porcine
interleukin-1 beta.";
Gene 129:285-289(1993).
-|- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CYTOKINE PROLIFERATION BY INDUCING IL-2 RELEASE. B-CELL
MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS.
-|- SUBUNIT: MONOMER.
-|- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
-|- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
SECRETORY PROTEINS.
-|- SIMILARITY: BELONGS TO THE IL-1 FAMILY.

This SWISS-PROT entry is copyright. It is produced through a collaboration
between the Swiss Institute of Bioinformatics and the EMBL outstation -
the European Bioinformatics Institute. There are no restrictions on its
use by non-profit institutions as long as its content is in no way
modified and this statement is not removed. Usage by and for commercial
entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).

EMBL; M86725; AAA02584.1; -;
PIR; JN0724; JN0724.
HSSP; P01584; LH1B.
InterPro; IPR002348; IL1_HBGF.
InterPro; IPR000975; Interleukin_1.
InterPro; IPR003502; Interleukin_1_prop.
PFam; PF00340; IL1; 1.
Pfam; PF02394; IL1_propep; 1.
PRINTS; PR00262; IL1HBGF.
ProDom; PD002536; Interleukin_1; 1.
SMART; SM00125; IL1; 1.
PROSITE; PS00253; INTERLEUKIN_1; 1.
Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen.
PROPSEP 1 114 BY SIMILARITY.
FT CHAIN 115 267 INTERLEUKIN-1 BETA.
SQ SEQUENCE 267 AA; 30404 MW; 7F6B92B784D5086F CRC64;

Query Match 15.8%; Score 129; DB 1; Length 267;
Best Local Similarity 29.9%; Pred. No. 7e-06;
Matches 47; Conservative 26; Mismatches 48; Indels 36; Gaps 8;

QY 2 MVLSGALCFMRKDSALKVLVLYHNOLLACGLHAKEV----TKGEISVVPNRALDASLS 56
Db :|||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||:
132 LVLAG-----PHMLKAHL-----LLTGDLKREVVFCMSFVGDDSN-----NKI 170
QY 57 PVTLGVGGQSCLSC-GTEKGPIKLKPNIIMELYLGAKESKSFTFYRRDMGLTSFSFESA 115
Db |||:|||: |||: |||: |||: |||: |||: |||: |||: |||: |||:
171 PVTLGIGKNLYLSCVMKNDPTQLQLEDID-PKRYPKRDMEKRFVYKTEIKNRVFESA 229
QY 116 APFGWFLCTSPDAQPVRL--TOIPEDPAWDAPITDF 150
Db |||: |||: |||: |||: |||: |||: |||: |||: |||: |||:
230 LYPNVWISTSQAEQRKPVFLGNKSGRQD-----ITDF 260

```

RESULT 14
ID IL1B_MOUSE STANDARD; PRT; 269 AA.
AC P10749;
DT 01-JUL-1989 (Rel. 11, Created)
DT 01-JUL-1989 (Rel. 11, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Interleukin-1 beta precursor (IL-1 beta).
GN IL1B.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=87058957; PubMed=3491144;
RA Gray P.W., Glaister D., Chen E., Goeddel D.V., Pennica D.;
RT "Two interleukin 1 genes in the mouse: cloning and expression of the
RT cDNA for murine interleukin 1 beta.";
RL J. Immunol. 137:3644-3648(1986).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=87117546; PubMed=3492706;
RA Telford J.L., Macchia G., Massone A., Carinci V., Palla E., Melli M.;
RT "The murine interleukin 1 beta gene: structure and evolution.";
RN [3]
RP Nucleic Acids Res. 14:9955-9963(1986).
RX MEDLINE=88229074; PubMed=2967326;
RA Huang J.J., Newton R.C., Rutledge S.J., Horuk R., Matthew J.B.,
RA Covington M., Lin Y.;
RT "Characterization of murine IL-1 beta. Isolation, expression, and
RT purification.";
RL J. Immunol. 140:3838-3843(1988).
RN [4]
RP X-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS).
RX MEDLINE=92227292; PubMed=1807351;
RA van Oostrum J., Priestle J.P., Grutter M.G., Schmitz A.;
RT "The structure of murine Interleukin-1 beta at 2.8-A resolution.";
RN [5]
RP J. Struct. Biol. 107:189-195(1991).
CC -!- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
CC IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
CC IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS.
CC -!- SUBUNIT: MONOMER.
CC -!- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC -!- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC SECRETORY PROTEINS.
CC -!- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL: M15131; AAA39276.1; -
CC EMBL: X04964; CA28637.1; -
CC PIR: A24719; A24719.
CC PIR: S13029; S13029.
CC PDB: 811B; 15-OCT-94.
CC PDB: 2MIB; 31-JAN-94.
CC MGD: MGI:96543; Il1b.
CC InterPro: IPR002348; IL1_HBGF.
CC InterPro: IPR000975; Interleukin_1.

```

```

DR InterPro: IPR003502; Interleukin_1_prop.
DR Pfam: PF00340; IL1; 1.
DR Pfam: PF02394; IL1_propep; 1.
DR PRINTS; PR00262; IL1HBGF.
DR PRODOM; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
DR PROSITE; PS00253; INTERLEUKIN_1; 1.
KW Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen;
KW 3D-structure.
FT PROPEP 1 117
FT CHAIN 118 269 INTERLEUKIN-1 BETA.
FT STRAND 123 129
FT TURN 130 131
FT STRAND 134 137
FT TURN 140 141
FT STRAND 143 146
FT TURN 150 154
FT STRAND 159 163
FT TURN 170 171
FT STRAND 173 179
FT TURN 180 181
FT STRAND 184 191
FT TURN 192 193
FT STRAND 194 201
FT TURN 204 206
FT HELIX 214 216
FT STRAND 217 222
FT TURN 227 231
FT STRAND 235 236
FT STRAND 238 242
FT STRAND 247 248
FT STRAND 250 252
FT STRAND 258 259
FT STRAND 262 266
SQ SEQUENCE 269 AA; 30931 MW; 734FA17B02ED87EE CRC64;

```

```

Query Match 15.6%; Score 128; DB 1; Length 269;
Best Local Similarity 31.7%; Pred. No. 9e-06;
Matches 44; Conservative 23; Mismatches 50; Indels 22; Gaps 6;

QY 8 LCFRMDKSLKLVLYLHNNQLLAGLHAEKVIKGEETSVVFNALDASLS----- 56
DB 123 LHYRLRDEQOKSLVSDPYELK-ALH-----LNGQNI-----NQVIFSMFVQGEPSNDKI 173
QY 57 PVILGVQGGSCQLSCCTEKG-PILKLEPVNIMELYLGAKESKFTFYRDMGLTSSFESA 115
DB 174 PVALGLKGNLYLSCVMKDGTPTLQLESVDPKQ-YPKKKMEKRFVNKIEVSKVEFESA 232
QY 116 AYPGWFLCTSPDADQPVRL 134
DB 233 EFPNWYISTSOAEKHPVFL 251

```

```

RESULT 15
IL1B_TRIVU STANDARD; PRT; 269 AA.
ID IL1B_TRIVU
AC Q9XST7;
DT 01-MAR-2002 (Rel. 41, Created)
DT 01-MAR-2002 (Rel. 41, Last sequence update)
DT 01-MAR-2002 (Rel. 41, Last annotation update)
DE Interleukin-1 beta precursor (IL-1 beta).
GN IL1B.
OS Trichosurus vulpecula (Brush-tailed possum).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Metatheria; Diprotodontia; Phalangeridae; Trichosurus.
OX NCBI_TaxID=9337;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=99221044; PubMed=10206203;
RA Wedlock D.N., Goh L.P., Parlange N.A., Buddle B.M.;
RT "Molecular cloning and physiological effects of brushtail possum
RT interleukin-1beta.";

```

```
RL Vet. Immunol. Immunopathol. 67:359-372(1999).
CC -I- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
CC IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
CC IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS.
CC -I- SUBUNIT: MONOMER.
CC -I- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC -I- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC SECRETORY PROTEINS.
CC -I- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
CC THIS SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL: AF071539; AAD21871.1; -.
CC DR HSSP: P01584; 1HIB.
CC DR InterPro: IPR002348; IL1_HBGF.
CC DR InterPro: IPR000975; Interleukin_1.
CC DR InterPro: IPR003502; Interleukin_1_prop.
CC DR Pfam: PF00340; IL1; 1.
CC DR Pfam: PF02394; IL1_propep; 1.
CC DR PRINTS: PR00262; IL1HBGF.
CC DR ProDom: PD002536; Interleukin_1; 1.
CC DR SMART: SM00125; IL1; 1.
CC DR PROSITE: PS00253; INTERLEUKIN_1; 1.
CC KW Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen.
CC FT PROPEP 1 112 BY SIMILARITY.
CC FT CHAIN 113 269 INTERLEUKIN-1 BETA.
CC SQ SEQUENCE 269 AA; 31141 MW; 307A1FE3B627D6E7 CRC64;
CC -----
Query Match 15.4%; Score 126.5; DB 1; Length 269;
Best Local Similarity 29.1%; Pred. No. 1.3e-05;
Matches 41; Conservative 27; Mismatches 52; Indels 21; Gaps 6;
QY 13 KDSALKVLYLHNNQLLAGGHAQKVGEEISVVPNRALDASLSPVLGVGGSGQLSCG 72
SD 142 KASLRALHLNGRNISSQVIFSMKYLIGD-----IGSQKTHVVLGCIKKNLYLSC- 191
73 TEKG--PILKLEPV-NIMELYLGAKESKGFYVRDWMGLTSSFSAAYPGWFLCTSPDAD 129
Db 192 VRGKXPILQEQIANFPSPINV---EKRFIFNKVEINNTTFESAEPNWIYSTQMD 247
QY 130 QPVRLTQIPEDPAWDAPITDF 150
Db 248 QPVFLGNI-----RGGKDITDF 264
```

Search completed: May 22, 2002, 14:12:49
Job time: 206 sec

GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein - protein search, using sw model

Run on: May 22, 2002, 14:09:08 ; Search time 27.07 Seconds
(without alignments)
996.942 Million cell updates/sec

Title: US-09-770-528-2
Perfect score: 819
Sequence: 1 MVLGALCFRKMDSALKVL.....IPEDPAWDAPITDFYQQCD 156

Scoring table:
BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 562222 seqs, 172994929 residues

Total number of hits satisfying chosen parameters: 562222

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

- 1: sp_archaea:*
- 2: sp_bacteria:*
- 3: sp_fungi:*
- 4: sp_human:*
- 5: sp_invertebrate:*
- 6: sp_mammal:*
- 7: sp_mhc:*
- 8: sp_organelle:*
- 9: sp_phase:*
- 10: sp_plant:*
- 11: sp_rodent:*
- 12: sp_virus:*
- 13: sp_vertebrate:*
- 14: sp_unclassified:*
- 15: sp_rvrius:*
- 16: sp_bacteriap:*
- 17: sp_archaeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	819	100.0	156	11	Q9JIG2 mus musculus
2	814	99.4	155	11	Q9QYI1 mus musculus
3	734	89.6	155	4	Q9UBH0 homo sapien
4	309	37.7	152	4	Q969H5 homo sapien
5	307.5	37.5	159	4	Q96GD6 homo sapien
6	305.5	37.3	177	6	Q9GMZ4 tursiops tr
7	285.5	34.9	176	6	Q9BEH0 canis famli
8	280.5	34.2	144	4	Q9BXX1 Q9BYX1 homo sapien
9	275.5	33.6	176	6	Q9GKK2 canis famli
10	198.5	24.2	157	4	Q9UHA5 Q9UHA5 homo sapien
11	190.5	23.3	72	6	Q77771 Q9UHA6 homo sapien
12	189.5	23.1	192	4	Q9UHA6 homo sapien
13	189.5	23.1	218	4	Q9NZH6 Q9HBF3 homo sapien
14	189.5	23.1	218	4	Q9HBF3 Q9JIA2 mus musculus
15	181.5	22.2	160	11	Q9JIA2 mus musculus
16	176.5	21.6	178	4	Q9HBF2 Q9HBF2 mus musculus

17	169.5	20.7	267	13	Q73909
18	167.5	20.5	158	4	Q9UHA7
19	165.5	20.2	183	11	Q9D6Z6
20	157	19.2	169	4	Q9NZH8
21	143	17.5	283	13	Q9PVZ5
22	128	15.6	599	11	Q9IWP7
23	127	15.5	267	6	Q29082
24	126	15.4	260	13	Q9YGD3
25	125	15.3	267	11	Q9IZL5
26	124	15.1	272	13	Q9DDF3
27	123	15.0	272	13	Q9DDF2
28	122.5	15.0	266	6	Q9RTK1
29	122	14.9	153	4	Q43645
30	122	14.9	254	13	Q9PT12
31	122	14.9	269	4	Q96HE5
32	119	14.5	261	13	Q90W84
33	117	14.3	276	13	Q57398
34	117	14.3	276	13	Q9FW18
35	108.5	13.2	118	6	Q9TJS0
36	88.5	10.8	64	13	Q98SG5
37	84	10.3	259	16	Q92XE8
38	84	10.3	1427	13	Q91562
39	84	10.3	1445	11	Q63155
40	83.5	10.2	1005	5	Q95ZC5
41	82	10.0	579	5	Q9NFR9
42	80.5	9.8	666	2	Q93R48
43	80.5	9.8	4881	2	Q9SOR3
44	80	9.8	364	10	Q49364
45	79	9.6	670	11	Q9QYE2

ALIGNMENTS

RESULT 1

Q9JIG2	PRELIMINARY;	PRT;	156 AA.
ID	Q9JIG2		
AC	Q9JIG2		
DT	01-OCT-2000 (TrEMBLrel. 15, Created)		
DT	01-OCT-2000 (TrEMBLrel. 15, Last sequence update)		
DT	01-DEC-2001 (TrEMBLrel. 19, Last annotation update)		
DE	INTERLEUKIN-1 DELTA (INTERLEUKIN 1 RECEPTOR ANTAGONIST HOMOLOG 1).		
DE	1).		
GN	IL1F5 OR IL1HY1.		
OS	Mus musculus (Mouse).		
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		
OC	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.		
OX	NCBI_TaxID=10090;		
RN	[1]		
RP	SEQUENCE FROM N.A.		
RA	Debets R., Timans J.C., Zurawski S., Sana T.R., Bazan F.,		
RA	Kastelein R.A.;		
RT	"Novel IL-1 ligands IL-1d and IL-1e use IL-1R related protein 2.";		
RL	Submitted (FEB-2000) to the EMBL/GenBank/DBJ databases.		
RN	[2]		
RP	SEQUENCE FROM N.A.		
RC	STRAIN=C57BL/6J; TISSUE=TONGUE, AND STOMACH;		
RX	MEDLINE=21085660; PubMed=11217851;		
RA	Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,		
RA	Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,		
RA	Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamataka I.,		
RA	Saito T., Okazaki Y., Gojohori T., Bono H., Kasukawa T., Saito R.,		
RA	Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,		
RA	Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,		
RA	Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,		
RA	Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,		
RA	Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,		
RA	Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,		
RA	Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,		
RA	Gustincich S., Hill D., Hofmann C., Hume D.A., Kamiya M., Lee N.H.,		
RA	Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,		
RA	Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,		
RA	Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.F.,		

RA Suzuki H., Toyooka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohsaki S.,
RA Hayashizaki Y.,
RT "Functional annotation of a full-length mouse cDNA collection.";
RL Nature 409:685-690(2001).
DR EMBL: AF230378; AAF91275.1; -
DR EMBL: AK009741; BAB26471.1; -
DR EMBL: AK009777; BAB26002.1; -
DR HSSP: P18510; 1ILR.
DR MGD: MGI:1859325; 1Ilf5.
DR InterPro: IPR000975; Interleukin_1.
DR Pfam: PF00340; IL1; 1.
DR ProDom: PD002536; Interleukin_1; 1.
DR SMART: SM00125; IL1; 1.
DR PROSITE: PS00253; INTERLEUKIN_1; 1.
SQ SEQUENCE 156 AA; 17136 MW; AAD1EE2F93CF77A7 CRC64;

Query Match 100.0%; Score 819; DB 11; Length 156;
Best Local Similarity 100.0%; Pred. No. 5.2e-80;
Matches 156; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MMVLSGALCFRKMDSALKVLYLHNNQLLAGLHAKEVKGEEISVVPNRALDASLSPVIL 60
Db 1 MMVLSGALCFRKMDSALKVLYLHNNQLLAGLHAKEVKGEEISVVPNRALDASLSPVIL 60
QY 61 GVGGSQCLSCGTEKGPILKLEPNIMELYLGAKESKSFYRRDMGLTSSFSFSAAYPGW 120
Db 61 GVGGSQCLSCGTEKGPILKLEPNIMELYLGAKESKSFYRRDMGLTSSFSFSAAYPGW 120
QY 121 FLCTSPDAPQVRLTQIPEDPAWDAPITDFYFQQCD 156
Db 121 FLCTSPDAPQVRLTQIPEDPAWDAPITDFYFQQCD 156

RESULT 2
QYQY1 ID Q9QY1 PRELIMINARY; PRT; 155 AA.
AC Q9QY1
DT 01-MAY-2000 (TReMBLrel. 13, Created)
DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)
DT 01-DEC-2001 (TReMBLrel. 19, Last annotation update)
DE IL-1L1 PROTEIN (INTERLEUKIN-1 HOMOLOG 3).
GN IL1F5 OR IL1H1.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RA Barton J.L., Nicklin M.J.H.;
RT "IL-1L1: A Novel Member of the Interleukin-1 Gene Family is Expressed
in Trophoblasts and Macrophages.";
RL Submitted (OCT-1999) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=20209405; PubMed=10744718;
RA Kumar S., McDonnell P.C., Lehr R., Tierney L., Tzimas M.N.,
RA Griswold D.E., Capper E.A., Tal-Singer R., Wells G.I., Doyle M.L.,
RA Young P.R.;
RT "Identification and initial characterization of four novel members of
the interleukin-1 family.";
RL J. Biol. Chem. 275:10308-10314(2000).
DR EMBL: AJ250429; CAB59831.1; -
DR EMBL: AF200495; AAF69251.1; -
DR HSSP: P18510; 1ILR.
DR MGD: MGI:1859325; 1Ilf5.
DR InterPro: IPR000975; Interleukin_1.
DR Pfam: PF00340; IL1; 1.
DR ProDom: PD002536; Interleukin_1; 1.
DR SMART: SM00125; IL1; 1.
DR PROSITE: PS00253; INTERLEUKIN_1; 1.
SQ SEQUENCE 155 AA; 17004 MW; A4B1770F2E12533A CRC64;

Query Match 99.4%; Score 814; DB 11; Length 155;
Best Local Similarity 100.0%; Pred. No. 1.8e-79;
Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 MVLSGALCFRKMDSALKVLYLHNNQLLAGLHAKEVKGEEISVVPNRALDASLSPVILG 61
Db 1 MVLSGALCFRKMDSALKVLYLHNNQLLAGLHAKEVKGEEISVVPNRALDASLSPVILG 60
QY 62 VQGGSOCLSCGTEKGPILKLEPNIMELYLGAKESKSFYRRDMGLTSSFSFSAAYPGWF 121
Db 61 VQGGSOCLSCGTEKGPILKLEPNIMELYLGAKESKSFYRRDMGLTSSFSFSAAYPGWF 120
QY 122 LCSTSPDAPQVRLTQIPEDPAWDAPITDFYFQQCD 156
Db 121 LCSTSPDAPQVRLTQIPEDPAWDAPITDFYFQQCD 155

RESULT 3
QYUBH0 ID Q9UBH0 PRELIMINARY; PRT; 155 AA.
AC Q9UBH0;
DT 01-MAY-2000 (TReMBLrel. 13, Created)
DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)
DT 01-OCT-2001 (TReMBLrel. 18, Last annotation update)
DE FILL DELTA (INTERLEUKIN-1 LIKE PROTEIN 1) (INTERLEUKIN-1 RECEPTOR
ANTAGONIST HOMOLOG 1) (INTERLEUKIN-1 DELTA).
GN IL1H1 OR IL1L1.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20092888; PubMed=10625660;
RA Smith D.E., Renshaw B.R., Ketchum R.R., Kubin M., Garka K.E.,
RA Sims J.E.;
RT "Four New Members Expand the IL-1 Superfamily.";
RL J. Biol. Chem. 275:1169-1175(2000).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=99443727; PubMed=10512743;
RA Mulero J.J., Pace A.M., Nelken S.T., Loeb D.B., Correa T.R.,
RA Drmanac R., Ford J.E.;
RT "IL1H1: A Novel Interleukin-1 Receptor Antagonist Gene.";
RL Biochem. Biophys. Res. Commun. 263:702-706(1999).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=PLACENTA;
RA Barton J.L., di Giovine F.S., Symons J.A., Nicklin M.J.H.;
RT "A tissue specific interleukin-1 receptor antagonist homolog from the
IL-1 cluster lacks IL-1, IL-1ra, IL-18 and IL-18ra activities.";
RL Submitted (JUN-1999) to the EMBL/GenBank/DBJ databases.
RN [4]
RP SEQUENCE FROM N.A.
RA Barton J.L., Herbst R., Bosio D., Nicklin M.J.H.;
RT "A tissue specific interleukin-1 receptor antagonist homolog from the
IL-1 cluster lacks IL-1, IL-1ra, IL-18 and IL-18ra activities.";
RL Submitted (JAN-2000) to the EMBL/GenBank/DBJ databases.
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE=20322477; PubMed=10866108;
RA Mulero J.J., Nelken S.T., Ford J.E.;
RT "Organization of the Human Interleukin-1 Receptor Antagonist Gene
IL1H1.";
RL Immunogenetics 51:425-428(2000).
RN [6]
RP SEQUENCE FROM N.A.
RA Debets R., Timans J.C., Zurawski S., Sana T.R., Bazan F.,
RA Kastelein R.A.;
RT "Novel IL-1 ligands IL-1d and IL-1e use IL-1R related protein 2.";
RL Submitted (FEB-2000) to the EMBL/GenBank/DBJ databases.

```

Db      120 WFLCGPAEPQOPVOLTKSEPSA-----RTKIFYEQ 150
||||| | |||:|:| | | |||:|
RESULT 5
Q96GD6 PRELIMINARY; PRT; 159 AA.
AC Q96GD6;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE INTERLEUKIN 1 RECEPTOR ANTAGONIST.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=PANCREATIC ADENOCARCINOMA;
RA Strausberg R.;
RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC009745; AA09745.1;
DR Receptor.
SQ SEQUENCE 159 AA; 17888 MW; C1D666CDF0D2F7B44 CRC64;

Query Match 37.5%; Score 307.5; DB 4; Length 159;
Best Local Similarity 48.0%; Pred. No. 4.1e-25;
Matches 72; Conservative 16; Mismatches 45; Indels 17; Gaps

QY 10 FRMKDSALKVLYLHNNQLAGLHAKEVIKGEISVYPNRLDASLSP--VILGVGGSQ 67
||: | | |||:|:| | | ||| | | | | | | | | | | | | | |
Db 20 FRIWDVNMQKTFYLRNNQLVAGYLGQSPNVLEEKIDVVP-----IEPHALFLGIHGKM 72
||| | | |||:|:| | | ||| | | | | | | | | | | | | | |
QY 68 CLSC---GTEKGPILKEPWNIMELYLGAKESEKSFTEYRDMCLTSSFSFSAAYPGWFICT 124
||||| | | |||:|:| | | ||| | | | | | | | | | | | | | |
Db 73 CLSCVKSQDETR--LQEAIVNTDLSENRRQKRFARISDSGPTTSFSAACPGWFICT 130
: ||||| | | | | | | | | | | | | | | | | | | | | |
QY 125 SPDAQPVRLTQIPEDPAWDAPITDFYFQ 154
: ||||| | | | | | | | | | | | | | | | | | | | | |
Db 131 AMEAQPVSLTNMPDE---GVVMTKFYFQE 157

RESULT 6
Q9GMZ4 PRELIMINARY; PRT; 177 AA.
AC Q9GMZ4;
DT 01-MAR-2001 (TrEMBLrel. 16, Created)
DT 01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE INTERLEUKIN-1 RECEPTOR ANTAGONIST.
GN IL-1RA.
OS Tursiops truncatus (Atlantic bottle-nosed dolphin).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Cetacea; Odontoceti; Delphinidae;
OC Tursiops.
OX NCBI_TaxID=9739;
RN [1]
RP SEQUENCE FROM N.A.
RC MEDLINE=21109087; PubMed=11182153;
RA Inoue Y., Itou T., Jimbo T., Syouji Y., Ueda K., Sakai T.;
RL "Molecular cloning and functional expression of bottle-nosed dolphin
RT (Tursiops truncatus) interleukin-1 receptor antagonist.";
RL Vet. Immunol. Immunopathol. 78:131-141(2001).
DR EMBL; AB038268; BAB11806.1;
DR HSSP; P18510; 1IRA.
DR InterPro; IPR000975; Interleukin_1.
DR Pfam; PF00340; IL1; 1.
DR ProDom; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
DR PROSITE; PS00253; INTERLEUKIN_1; 1.
DR Receptor.
SQ SEQUENCE 177 AA; 19923 MW; 6FD19A06C09B131B CRC64;

```


Db 91 CLACVSGDETR--LQEAVNITDLSNKKODKREFTILSDSGPTTSFSAACPGWFLCT 148

Qy 125 SPEADQPVRLTQIPEDPAWDAPITDFYFQQ 154

Db 149 ALEADRLVSLNRPPEAMW---VTKFYFQK 175

RESULT 10

Q9UHA5 Q9UHA5 PRELIMINARY; PRT; 157 AA.

AC Q9UHA5

DT 01-MAY-2000 (TREMBlrel. 13, Created)

DT 01-MAY-2000 (TREMBlrel. 13, Last sequence update)

DT 01-OCT-2001 (TREMBlrel. 18, Last annotation update)

DE FILI ETA.

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

OC NCBI_TaxID=9606;

OX [1]

RP SEQUENCE FROM N.A.

RX MEDLINE=20092888; PubMed=10625660;

RA Smith D.E., Renshaw B.R., Ketchum R.R., Kubin M., Garka K.E.,

RA Sims J.E.;

RT "Four New Members Expand the IL-1 Superfamily.";

RL J. Biol. Chem. 275:1169-1175(2000).

DR EMBL; AF201833; AAF25213.1; -

DR HSSP; P10749; 2MIB.

DR InterPro; IPR000975; Interleukin_1.

DR Pfam; PF00340; IL1; 1

DR ProDom; PD002536; Interleukin_1; 1.

DR SMART; SM00125; IL1; 1.

DR PROSITE; PS00253; INTERLEUKIN_1; UNKNOWN_1.

DR NCBI_TaxID=9606;

RP SEQUENCE 157 AA; 17702 MW; 7A54F3D7557A3EE3 CRC64;

Qy 10 FRMKDSALKVLYLHNNOLLAGGLHAQKVKGEISVVPNRALDASLSP-----VILGVO 63

Db 12 YAIRDSQWVWVLSGNSLIAAPL--SRSIKPVTLHLIACR--DTEFSDKEKGNVILGIK 67

Qy 64 GGSCLSCGTEKG--PILKLEPVNIMELYLGAKESKFTFYRRDGLTSSFSAAYPGWFL 122

Db 68 GKDLCLFCAETQGRPTLQKKEKIMLDYVEKKAQKPLFPFHKEGTSVFQSVYFGWFI 127

Qy 123 CTSPEADQPVRLTQ 136

Db 128 ATSTTSGQPIFLTK 141

RESULT 11

O77711 Q77711 PRELIMINARY; PRT; 72 AA.

AC O77711

DT 01-NOV-1998 (TREMBlrel. 08, Created)

DT 01-NOV-1998 (TREMBlrel. 08, Last sequence update)

DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)

DE INTERLEUKIN-1 RECEPTOR ANTAGONIST SECRETORY FORM (FRAGMENT).

GN IL-1RA.

OS Equus caballus (Horse).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Perissodactyla; Equidae; Equus.

OC NCBI_TaxID=9796;

OX [1]

RP SEQUENCE FROM N.A.

RC STRAIN-BRED THOROUGHBRED;

RA Dhar A.K., Thompson M.S., Paradis M.R., Alciivar-Warren A.;

RT "Molecular Characterization of Equine Interleukin 1 Receptor Antagonist (IL-1ra) Gene.";

RL Submitted (JUN-1998) to the EMBL/GenBank/DBJ databases.

DR EMBL; AF072476; AAC62237.1; -

DR HSSP; P18510; 1IRA.

DR InterPro; IPR000975; Interleukin_1.

DR Pfam; PF00340; IL1; 1.

DR ProDom; PD002536; Interleukin_1; 1.

DR SMART; SM00125; IL1; 1.

DR PROSITE; PS00253; INTERLEUKIN_1; 1.

DR KW Receptor.

FT NON_TER

SQ SEQUENCE 72 AA; 8215 MW; 290CC9B9D4C413D9 CRC64;

Query Match 23.3%; Score 190.5; DB 6; Length 72;

Best Local Similarity 53.4%; Pred. No. 5.4e-13;

Matches 39; Conservative 11; Mismatches 20; Indels 3; Gaps 1;

Qy 82 EPNVIMELYLGAKESKFTFYRRDGLTSSFSAAYPGWFLCTSPADQPVRLTQIPEDP 141

Db 1 EAVNITDLSNKKENKREFTFIRNSGPTTSFSAACPGWFLCTAQEADRPVSLTNKPK- 59

Qy 142 AWDAPITDFYFQQ 154

Db 60 --SFWVTKEYFOE 70

RESULT 12

Q9UHA6 Q9UHA6 PRELIMINARY; PRT; 192 AA.

AC Q9UHA6

DT 01-MAY-2000 (TREMBlrel. 13, Created)

DT 01-MAY-2000 (TREMBlrel. 13, Last sequence update)

DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)

DE FILI ZETA.

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

OC NCBI_TaxID=9606;

OX [1]

RP SEQUENCE FROM N.A.

RX MEDLINE=20092888; PubMed=10625660;

RA Smith D.E., Renshaw B.R., Ketchum R.R., Kubin M., Garka K.E.,

RA Sims J.E.;

RT "Four New Members Expand the IL-1 Superfamily.";

RL J. Biol. Chem. 275:1169-1175(2000).

DR EMBL; AF201833; AAF25212.1; -

DR HSSP; P18510; 1ILR.

DR InterPro; IPR000975; Interleukin_1.

DR Pfam; PF00340; IL1; 1.

DR ProDom; PD002536; Interleukin_1; 1.

DR SMART; SM00125; IL1; 1.

DR NCBI_TaxID=9606;

RP SEQUENCE 192 AA; 21543 MW; 4AF584C81802F612 CRC64;

Query Match 23.1%; Score 189.5; DB 4; Length 192;

Best Local Similarity 37.3%; Pred. No. 2.4e-12;

Matches 50; Conservative 23; Mismatches 50; Indels 11; Gaps 5;

Qy 10 FRMKDSALKVLYLHNNOLLAGGLHAQKVKGEISVVPNRALDASL---SPVILGVQGS 66

Db 34 FSIHQDHHKVLVLDGSLNIA--VPDKNIRPEIFFALASSSSAAGKSGPILLVSGKE 91

Qy 67 QCLSCGTEKG---PILKLEPVNIMELYLGAKES--KSFTFYRRDGLTSSFSAAYPGWF 121

Db 92 FCFLYCDKDGQSHPSLQKKEKLMKL-AAQKESARRPFIYRAQVGSNNMLESAAHPGW 150

Qy 122 LCTSPADQPVRLT 135

Db 151 ICTSCNCPVGVGT 164

RESULT 13

Q9NZH6

```

ID Q9NZH6 PRELIMINARY; PRT; 218 AA.
AC Q9NZH6;
DT 01-OCT-2000 (TREMBLrel. 15, Created)
DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)
DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)
DE INTERLEUKIN-1 HOMOLOG 4 (IL-1X PROTEIN) (INTERLEUKIN-1-RELATED PROTEIN
DE LONG ISOFORM A).
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
[1]
RN RP
SEQUENCE FROM N.A.
RC TISSUE-FETAL LUNG, FETAL TESTIS, FETAL B-CELL, AND FETAL COLON;
RX MEDLINE=20209405; PubMed=10744718;
RA Kumar S., McDonnell P.C., Lehr R., Tierney L., Tzimas M.N.,
RA Griswold D.E., Capper E.A., Tal-Singer R., Wells G.I., Doyle M.L.,
RA Young P.R.;
RT "Identification and initial characterization of four novel members of
RT the interleukin-1 family."
RL J. Biol. Chem. 275:10308-10314(2000).
[2]
RN RP
SEQUENCE FROM N.A.
RC TISSUE-COLON CARCINOMA;
RA Manoj P.P., Mantovani A., Muzio M.;
RL Submitted (JUL-1999) to the EMBL/GenBank/DBJ databases.
[3]
RN RP
SEQUENCE FROM N.A.
RA Pan G., Risser P., Mao W., Baldwin D.T., Zhong A.W., Yansura D.,
RA Lewis L., Eigenbrot C., Henzel W.J., Vandlen R., Filvaroff E.;
RT "IL-1H, an interleukin-1-related protein that binds IL-18 receptor/IL-
RT 1Rrp."
RL Submitted (APR-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF200496; AAF69252.1; -.
DR EMBL; AF167368; AAG29344.1; -.
DR EMBL; AF251118; AAG14420.1; -.
DR HSSP; P18510; ILIR.
DR InterPro; IPR000975; Interleukin_1.
DR Pfam; PF00340; IL1; 1.
DR ProDom; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
SQ SEQUENCE 218 AA; 24126 MW; 96E089310D2CEA68 CRC64;

Query Match 23.1%; Score 189.5; DB 4; Length 218;
Best Local Similarity 37.3%; Pred. No. 2.8e-12;
Matches 50; Conservative 23; Mismatches 50; Indels 11; Gaps 5;

QY 10 FRMKDSALKVLYLHNNQLLAGLHAQKVIKGEISVVPNRALDASL---SPVILGVQGS 66
DB 60 FSIHQDHQKVLVLDGSLNLA--VPDKNYIRPEIFFALASSLSASAEGKSPILLGVSKGE 117
QY 67 QCLSCGTEKG---PILKLEPVNIMELYLGAKES--KSFTFYRRDMGLTSSFESAAYPGWF 121
DB 118 FCLYCDKDKGSHPSLQKKEKLMKL-AAQKESARRPFIFYRAQVGSWNLMLESAHPGWF 176
QY 122 LCTSPDADQPVRLT 135
DB 177 ICTSCNCPVGVGT 190

RESULT 15
Q9JLA2 PRELIMINARY; PRT; 160 AA.
ID Q9JLA2
AC Q9JLA2;
DT 01-OCT-2000 (TREMBLrel. 15, Created)
DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)
DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)
DE INTERLEUKIN-1 HOMOLOG 1 (INTERLEUKIN-1 EPSILON) (INTERLEUKIN 1
DE SUPERFAMILY 1, EPSILON).
GN IL1F6 OR FIL1 OR IL1E.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
[1]
RN RP
SEQUENCE FROM N.A.
RX MEDLINE=20209405; PubMed=10744718;
RA Kumar S., McDonnell P.C., Lehr R., Tierney L., Tzimas M.N.,
RA Griswold D.E., Capper E.A., Tal-Singer R., Wells G.I., Doyle M.L.,
RA Young P.R.;
RT "Identification and initial characterization of four novel members of
RT the interleukin-1 family."
RL J. Biol. Chem. 275:10308-10314(2000).
[2]
RN RP
SEQUENCE FROM N.A.
RA Debets R., Timans J., Zurawski S., Bazan J.F., Kastelein R.A.;
RT "Novel IL-1 family member IL-1e responds through the orphan IL-1R-
RT related protein 2; response is antagonized by IL-1d."
RL Submitted (NOV-1999) to the EMBL/GenBank/DBJ databases.
[3]
RN RP
SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=EMBRYO;
RX MEDLINE=21085660; PubMed=11217851;
RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
```

```

RN RP
SEQUENCE FROM N.A.
RX MEDLINE=21066552; PubMed=11145836;
RA Pan G., Risser P., Mao W., Baldwin D.T., Zhong A.W., Filvaroff E.,
RA Yansura D., Lewis L., Eigenbrot C., Henzel W.J., Vandlen R.;
RT "IL-1H, an interleukin 1-related protein that binds IL-18 receptor/IL-
RT 1Rrp."
RL Cytokine 13:1-7(2001).
DR EMBL; AF251119; AAG14421.1; -.
DR HSSP; P18510; ILIR.
DR InterPro; IPR000975; Interleukin_1.
DR Pfam; PF00340; IL1; 1.
DR ProDom; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
SQ SEQUENCE 218 AA; 24138 MW; 76E09C35093DEA63 CRC64;

Query Match 23.1%; Score 189.5; DB 4; Length 218;
Best Local Similarity 37.3%; Pred. No. 2.8e-12;
Matches 50; Conservative 23; Mismatches 50; Indels 11; Gaps 5;

QY 10 FRMKDSALKVLYLHNNQLLAGLHAQKVIKGEISVVPNRALDASL---SPVILGVQGS 66
DB 60 FSIHQDHQKVLVLDGSLNLA--VPDKNYIRPEIFFALASSLSASAEGKSPILLGVSKGE 117
QY 67 QCLSCGTEKG---PILKLEPVNIMELYLGAKES--KSFTFYRRDMGLTSSFESAAYPGWF 121
DB 118 FCLYCDKDKGSHPSLQKKEKLMKL-AAQKESARRPFIFYRAQVGSWNLMLESAHPGWF 176
QY 122 LCTSPDADQPVRLT 135
DB 177 ICTSCNCPVGVGT 190

RESULT 15
Q9JLA2 PRELIMINARY; PRT; 160 AA.
ID Q9JLA2
AC Q9JLA2;
DT 01-OCT-2000 (TREMBLrel. 15, Created)
DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)
DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)
DE INTERLEUKIN-1 HOMOLOG 1 (INTERLEUKIN-1 EPSILON) (INTERLEUKIN 1
DE SUPERFAMILY 1, EPSILON).
GN IL1F6 OR FIL1 OR IL1E.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
[1]
RN RP
SEQUENCE FROM N.A.
RX MEDLINE=20209405; PubMed=10744718;
RA Kumar S., McDonnell P.C., Lehr R., Tierney L., Tzimas M.N.,
RA Griswold D.E., Capper E.A., Tal-Singer R., Wells G.I., Doyle M.L.,
RA Young P.R.;
RT "Identification and initial characterization of four novel members of
RT the interleukin-1 family."
RL J. Biol. Chem. 275:10308-10314(2000).
[2]
RN RP
SEQUENCE FROM N.A.
RA Debets R., Timans J., Zurawski S., Bazan J.F., Kastelein R.A.;
RT "Novel IL-1 family member IL-1e responds through the orphan IL-1R-
RT related protein 2; response is antagonized by IL-1d."
RL Submitted (NOV-1999) to the EMBL/GenBank/DBJ databases.
[3]
RN RP
SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=EMBRYO;
RX MEDLINE=21085660; PubMed=11217851;
RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
```

RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriani L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyooka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA Hayashizaki Y.,
RT "Functional annotation of a full-length mouse cDNA collection."
RL Nature 409:685-690(2001).
DR EMBL; AF200493; AAF69249.1; -.
DR EMBL; AF206697; AAG35671.1; -.
DR EMBL; AK004061; BAB23147.1; -.
DR HSSP; P01584; 1HIB.
DR MGD; MGI:1859324; Il1lf6.
DR InterPro; IPR000975; Interleukin_1.
DR Pfam; PF00340; IL1; 1.
DR ProDom; PD002536; Interleukin_1; 1.
DR SMART; SM00125; IL1; 1.
SQ SEQUENCE 160 AA; 18015 MW; AA0434D68FF62F4A CRC64;

Query Match 22.2%; Score 181.5; DB 11; Length 160;
Best Local Similarity 35.3%; Pred. No. 1.4e-11;
Matches 53; Conservative 25; Mismatches 49; Indels 23; Gaps 6;

QY 12 MKDSALKVLYLHNNQLLAGLHAEKVIKGE-----ISVVPNRALDASLS----PVILGV 62
DB 17 VQDLSRVRWILQNNILTA-----VPRKEQTPVPTITLLPCQYLDLTETNRGDPYMGV 69
QY 63 QGGSQCLSCGTEKG--PILKLEPVNIMELYLGAKESKFTFYRRDMGLTSSFESRAYPGW 120
DB 70 QRPWNSCLFC-TKDGEQPVQLGEGNIMENYKKEPVKASLFYHKHKSGLTSTFESRAFPGW 128
QY 121 FLCTSPEADQPVRLTQIPEDPAWDAPITDF 150
DB 129 FIAVCSKSGCPLILTQ-----ELGEIFITDF 154

Search completed: May 22, 2002, 14:12:31
Job time: 203 sec

